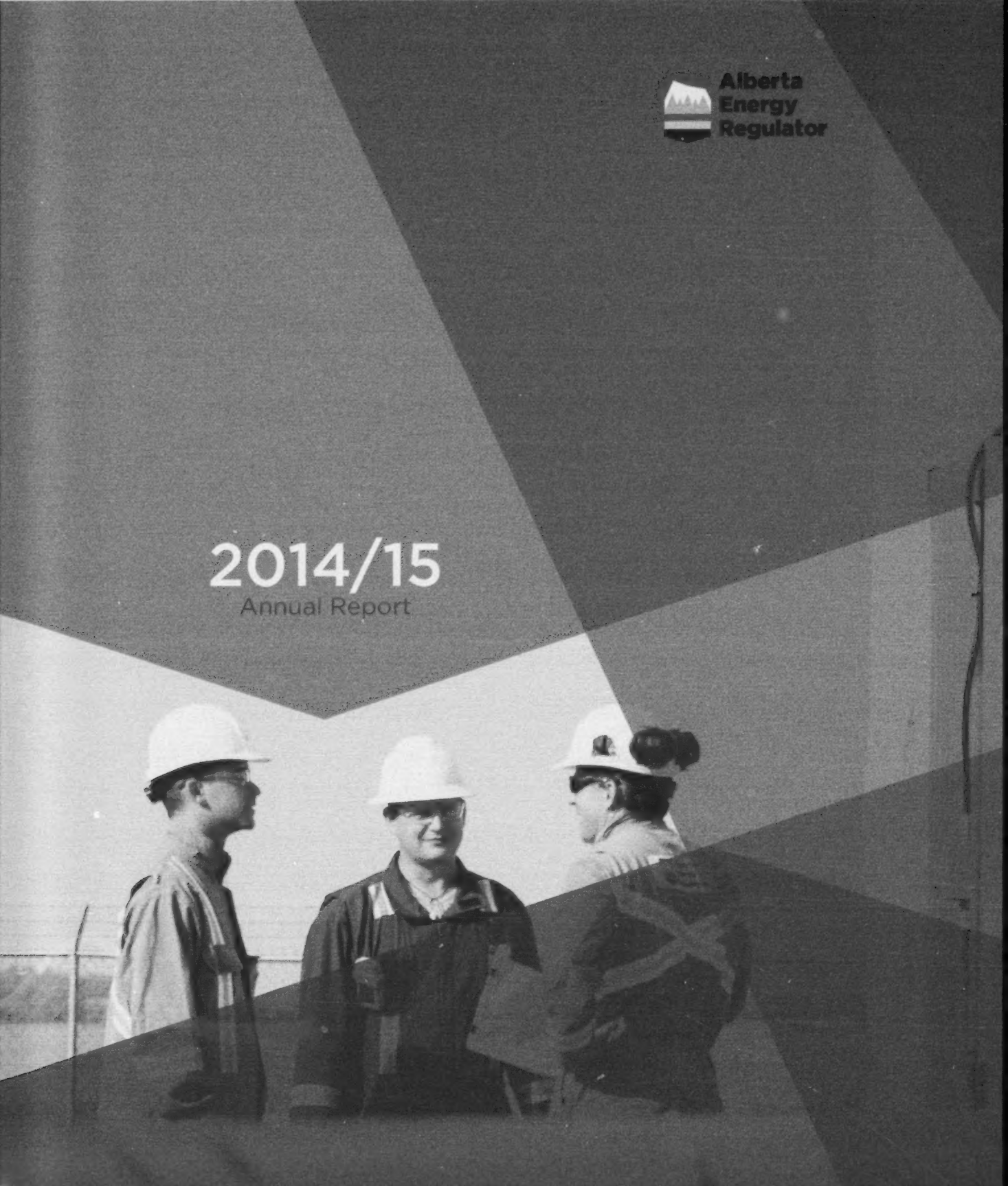
Alberta Energy Regulator

2014/15
Annual Report



WHAT WE DON'T

electricity

natural gas price

gasoline

renewables

pipelines that cross borders

WHAT WE REGULATE

OVER **200** primary/enhanced recovery projects (in situ) AND **16** experimental projects

MORE THAN **50** thermal/enhanced in situ projects

OVER **421 000** kilometres of pipelines

9 oil sands mines

782 gas processing plants

5 bitumen upgraders

OVER **178 000** operating natural gas and oil wells

4 coal processing plants

MORE THAN **29 000** oil facilities AND CLOSE TO **21 000** gas facilities

11 producing coal mines

Original graphic provided by Dhwanit Mistry

Contents

01
Message from the Chair

03
Message from the President and CEO

05
Message: An Employee's Perspective

07
About the Alberta Energy Regulator

12
Year In Review and Highlights

18
2014–15 Progress Report

21
Protective

31
Effective

43
Efficient

53
Credible

65
Delivering the Strategic Plan

75
Operational Overview

81
Corporate Governance

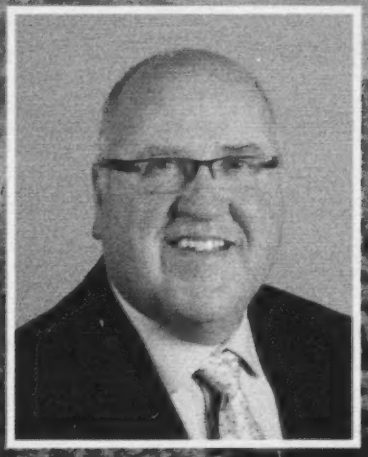
89
Management's Discussion and Analysis

102
Financial Statements

124
Glossary

» *Message from the Chair*

"The AER's story...is one that we, as a board, are proud of and work hard to maintain."



Gerard Protti
Chair

On behalf of the board of directors, I'm pleased to report that 2014/15 was filled with accomplishments and progress as the Alberta Energy Regulator (AER) developed innovative processes and continued its transformation into a protective, effective, efficient, and credible regulator.

Although we completed the third phase of our transition to the AER, from a legislative perspective, in April 2014, the complex transformation process continued this past year.

As transformation unfolded, staff continued to ensure that the regulator's oversight and enforcement responsibilities were maintained at the highest level. Since the expansion of our mandate, the AER integrated operational and capital budgets and adjusted administration fees, which are paid by industry to support the regulator's ongoing costs. These adjustments required extensive consultation with our industry and government stakeholders. The board of directors monitored this work and were impressed by the coordination and results of these consultations and the performance of AER staff during this period.

Another critical part of the AER's transformation was the successful integration of new employees. AER leaders managed the task well, helping employees transition from the Energy Resources Conservation Board, Alberta Environment and Sustainable Resource Development (now Alberta Environment and Parks), and new hires from other organizations. Once again, the board of directors noted the great strides taken by leaders and staff to build a high-performing and innovative organization.

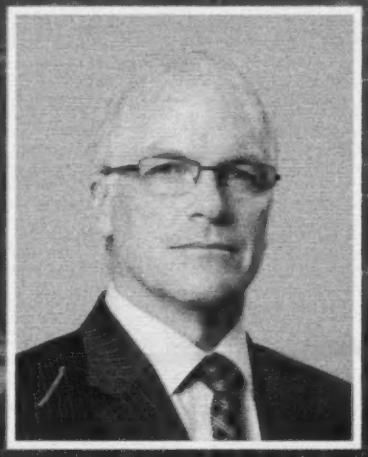
Being innovative extends to our increased mandate to protect the environment. To ensure that we meet our responsibilities to protect the air, water, land and biodiversity, we have developed a work plan that plots a clear, strategic environmental path that complements the AER's 2014–17 strategic plan.

As a regulator that often breaks new ground in regulatory development, the AER had many opportunities over the last 12 months to speak at conferences and stakeholder meetings here in Alberta, across Canada, and worldwide. This work is important for upholding the AER's reputation as a credible regulator and achieving our vision of becoming best in class. The board was pleased to witness the commitment shown by the president and chief executive officer, the executive leadership team, and AER staff, who proudly told the AER story.

The AER's story of transition, transformation, and progress is one that we, as a board, are proud of and work hard to maintain. I look forward to the challenges, successes, and opportunities that lie ahead in the next chapter of our story.

» *Message from the President and CEO*

"...we must transform the AER to reach our vision of becoming best in class."



Jim Ellis
President &
Chief Executive Officer

For the AER, the past year was one of continued change and transformation. As Alberta's single regulator for energy resource development, we focused on delivering on our strategic plan to be a protective, effective, efficient, and credible regulator—one that is best in class.

We've made great progress in delivering on these priorities by

- providing more information on incidents, investigations, and enforcements with our Compliance Dashboard,
- responding swiftly to seismic activity in Fox Creek by implementing a "traffic light" protocol for companies conducting hydraulic fracturing activities in the area,
- focusing on our expanded environmental mandate by hiring Dr. Monique Dubé as our first chief environmental scientist to lead our efforts of finding opportunities to improve the AER's environmental performance (see story on page 41),
- carrying out targeted inspections focused on reducing odours and emissions in the Peace River region, and
- launching a new approach to stakeholder engagement with our multistakeholder engagement advisory committee.

This progress earned our pipeline safety program recognition from the Office of the Auditor General of Alberta. In its 2015 audit report, the Auditor General made six recommendations to improve our surveillance and enforcement activities, which we accepted and are addressing.

As a regulator funded through an industry levy, and accountable to the Government of Alberta, which reviews and approves our budget, we have responded to the impact of low oil prices by demonstrating fiscal restraint in our operations and introducing efficiencies that save money for industry while upholding public safety and environmental protection.

By reducing duplication and finding new approaches to regulatory oversight, we have generated more than $270 million in verified annual savings for industry—making the AER a **"levy-neutral" regulator***.

While we're pleased with this progress, the AER exists to protect what matters most to Albertans: public safety and the environment, specifically Alberta's land, water, air, and biodiversity. This is the heart of our mandate.

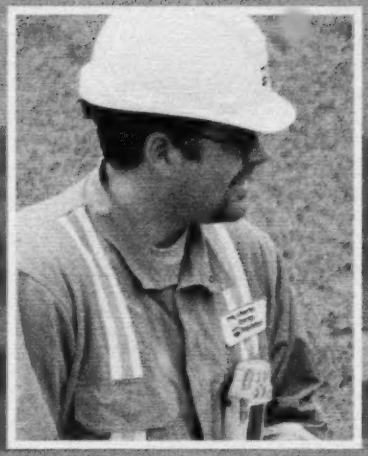
We've made positive progress in delivering on our strategic initiatives while conducting our core regulatory work. Still, we must transform the AER to reach our vision of becoming best in class. We will accomplish this through our 1200 employees, who exhibit the passion and drive that is key to our success as we transform our organization and deliver on our mandate and vision.

Last year, we published our first annual report to share our vision, our plan, and our priorities. While I am pleased by our progress to date, more must be done. As we reflect on our progress in this year's annual report, we share our plans to improve our operations and meet our targets in the pursuit of our vision.

* Terms coloured blue can be found in the Glossary section on page 124.

» *Message: An Employee's Perspective*

"[AER staff] all share the desire to do our best to get the job done and do it with excellence."



Steve Tymchyshyn
Environment & Operational Performance

When I started working as an inspector at the AER in 2013, I did so after leaving a long career with Environment and Sustainable Resource Development (ESRD), now Alberta Environment and Parks. I was open to change and new challenges and was very excited to embark on such an important journey with this new regulator.

I'm very proud to say I work for the AER. I'm proud of how we uphold our commitments to protect people, the environment, and Alberta's energy resources.

Being a part of the journey to become best in class has made me realize how much can be accomplished when you are surrounded by passionate and skilled people. When I think back to my first days at the AER, I'm amazed at what we've accomplished. The AER is leading the way in responsible energy regulation. We are building a reputation as a trusted and strong regulator through our actions.

When you think about the people who are considered to be the best at what they do, they all have one thing in common: the ability to take action. They don't sit on the sidelines talking a big game or thinking of why something can't happen; instead, they make things happen.

As an organization, we are working to define what it means to be best in class through our **Best-in-Class** Project. And while I look forward to the final results of this work, I believe we already display many best-in-class qualities. As an AER employee, to me, being best in class means

- using the tools and resources available to achieve the best possible outcome,
- accepting the challenges of our job and the opportunities to explore new approaches and work with new people,
- being humble and prepared to make mistakes,
- being resilient and driven to continually improve and learn, and
- having a commitment to excellence.

I see these qualities and traits in my colleagues and in the AER's leadership team. We all share the desire to do our best to get the job done and do it with excellence. Despite working from numerous locations across Alberta, we are united through our shared passion.

As we continue on our journey, we will encounter challenges and unknowns. To get the results we have set out to achieve, I encourage my colleagues to follow sports psychologist Dr. Jeff Spencer's advice and "feel the fear and do it anyway."

I'm proud of our work in 2014/15 and I'm ready to do more of the same in the year ahead.

OUR MANDATE

The AER's mandate is to ensure the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

OUR VISION

The Alberta Energy Regulator is recognized as best in class, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans.

ABOUT THE ALBERTA ENERGY REGULATOR

The Alberta Energy Regulator (AER) is the single provincial regulator for oil, natural gas, oil sands, and coal development in Alberta. The AER ensures the safe, efficient, orderly, and environmentally responsible development of energy resources. This includes allocating and conserving water, managing public lands, and protecting the environment, while securing economic benefits for all Albertans.

Our Responsibilities

With established reserves of 166 billion barrels of bitumen, 1.8 billion barrels of crude oil, 31 trillion cubic feet of conventional natural gas, and 37 billion tons of coal, the AER regulates some of the world's largest hydrocarbon resources. Developing and transporting these resources requires significant infrastructure; the AER regulates

- over 421 000 kilometres (km) of pipelines,
- over 178 000 operating wells,
- 29 000 oil facilities,
- 50 thermal in situ (oil sands recovery) projects,
- 9 oil sands mines,
- 4 coal processing plants, and
- 11 producing coal mines.

To ensure that this activity is safe, environmentally responsible, and closely managed, the Government of Alberta has granted the AER authority to

- review and make decisions on proposed energy developments (over 40 000 applications each year),
- oversee all aspects of energy resource activities in accordance with government policies,
- regularly inspect energy activities to ensure that all applicable requirements are met,
- take enforcement action in response to companies that fail to comply with AER requirements, and
- hold hearings on proposed energy developments.

Supporting all of this work are 1200 technical staff, scientists, inspectors, investigators, stakeholder engagement specialists, lawyers, regulatory experts, and other employees working from 15 locations stretching from Medicine Hat in the south to High Level in the north.

The AER also boasts two world-class services that few other regulators have: the Core Research Centre (CRC) and the Alberta Geological Survey (AGS).

The CRC collects, preserves, and displays core samples, drill cuttings, and drilling and completion records of oil and gas wells in Alberta, which are used by companies large and small to research and develop our energy resources. The CRC houses more than 1.5 million boxes of core, 20 million vials of drill cutting samples, and daily drilling reports from over 400 000 wells.

The AGS provides both the AER and Albertans in general with a scientific view into the world beneath Alberta, including rocks, minerals, soils, and water. Expert teams of geoscientists study such important themes as our valuable groundwater resources and how oil and gas development affects seismic events.

Alberta's Single Energy Regulator

The AER was created upon proclamation of the ***Responsible Energy Development Act***, which dissolved the Energy Resources Conservation Board (ERCB). We then worked to take on additional regulatory functions related to energy development from Alberta Environment and Sustainable Resource Development (ESRD), now Alberta Environment and Parks, itself having been created by a merger of two government ministries not long before the AER was formed.

The AER is just one part of Alberta's **Integrated Resource Management System**. This Government of Alberta initiative considers the combined effects

Supporting all of this work are 1200 technical staff, scientists, inspectors, investigators, stakeholder engagement specialists, lawyers, regulatory experts, and other employees working from 15 locations stretching from Medicine Hat in the south to High Level in the north.

of existing and future development and is designed to achieve environmental, economic, and social outcomes from resource development.

In addition to the AER, this system includes

- the Government of Alberta, which sets policy as it relates to energy development in the province;
- the Alberta Environmental Monitoring, Evaluation and Reporting Agency, which provides data and information;
- the Aboriginal Consultation Office, which manages First Nations consultation on behalf of the Government of Alberta; and
- the Policy Management Office, which acts as the main interface between government and the AER.

What We Don't Regulate

The AER regulates all aspects of energy resource development in Alberta, which includes oil, natural gas, natural gas liquids, oil sands, and coal. However, we **do not** regulate

- any aspect of electricity generation or distribution, including gas utility pipelines;
- the price of natural gas;
- gasoline or any other refined petroleum products;
- renewable energies, such as wind power; or
- oil and gas pipelines that cross provincial or international borders.

ENSURING STRONG ENVIRONMENTAL PERFORMANCE: REGULATING WITH A PLAN

Creating the AER involved taking on environmental functions from Alberta Environment and Sustainable Resource Development (ESRD), now Alberta Environment and Parks, significantly expanding our environmental mandate.

To ensure our success with our new responsibilities, we took stock of our environmental functions to understand how to best deliver on this mandate and brought in expert help by establishing the new position of chief environmental scientist, which was filled by Dr. Monique Dubé (see page 41).

Dr. Dubé has only been with the AER since September 2014 but has already made valuable changes that help us identify ways to improve environmental performance in Alberta's energy sector and strengthen our own environmental vision. Under her direction, we are developing a three-year environmental work plan that sets the direction, activities, and priorities for environmental protection across the AER.

This work plan has four themes that align with the AER's four priorities:

1. Monitor and report on environmental performance (protective): The assessment and management of **cumulative effects** is fundamental to achieving the AER's environmental mandate and to managing resource development for land-use planning and policy. The AER, Alberta Environment and Parks, and the Alberta Environmental Monitoring, Evaluation, and Reporting Agency (AMERA) have developed a cumulative effects management "blueprint" to provide an understanding of how to assess **cumulative impacts** and implement methods to manage them among members of Alberta's Integrated Resource Management System (IRMS). The blueprint will allow the AER to test methods of managing cumulative effects and new ways of regulating the energy industry, such as in **play-based regulation**.
2. Responsive and adaptive environmental management (effective): A clear and well-understood mandate is necessary to deliver responsive and adaptive environmental management. which is why we've thoroughly reviewed Alberta's existing

CUMULATIVE EFFECTS

Energy development, like all industrial activity, has an impact on the environment. The AER knows that these impacts can multiply when development occurs rapidly in a specific area, which is what we refer to as "cumulative effects." In such cases, pressures on the environment and impacts on local residents can be greater than when those operations are spread across the province, simply because the land only has so much capacity to support human and industrial activity.

Managing cumulative effects is one of the AER's top priorities. We are developing new regulations and systems that will allow us to look at the whole picture when we assess an application so that when the cumulative effects of development are growing too high, we can take measures to reduce them.

legislation. This review has helped us develop a clear environmental mandate—one that is distinct from that of Alberta Environment and Parks and AEMERA, and one that will support our interactions with our partners and stakeholders in areas like environmental monitoring and cumulative effects assessment.

We have also clarified our role with Alberta Health and Alberta Health Services. While the AER is not a human health regulator, some of our partners are, so it's critical that we support them by sharing information about industry compliance, AER investigation history, emissions monitoring, and environmental monitoring. These clear distinctions will help us better work with our partners to serve Albertans, especially where stakeholders repeatedly raise health concerns related to the energy industry's environmental performance.

We must develop a new process to address stakeholders' recurring concerns in a more timely fashion. A new process will enhance information sharing, which will help health regulators examine possible links between industry activities and public health. Such a process is currently being tested in the Lochend, Didsbury, and Fort McKay areas.

3. Environmental cooperation and alignment (efficient): The AER is responsible for the full life cycle of energy resource regulation in Alberta. To increase efficiency, cooperation, and consistency across the AER for environmental matters, we have established committees called Environmental Communities of Practice to address issues related to air and greenhouse gasses, surface water, groundwater, land, and biodiversity.

   We are also looking to improve environmental monitoring; we are reviewing environmental monitoring requirements for oil sands operators to better align and coordinate with AEMERA and the joint Canada-Alberta oil sands monitoring program and to support cumulative effects assessment and regulatory decision-making.

4. Recognized environment expertise (credible): The AER employs highly skilled experts to inform regulation at every level. It is important that this expertise be available to our stakeholders and that we be able to explain our decisions that impact the environment in an open and transparent manner. To address this, the AER will publish *AER Environmental Perspectives*, a publication on environmental issues, as well as establish a series of science seminars to support continuous learning within and outside the AER.

With the expansion of our environmental mandate, we've also taken inventory of our in-house environmental expertise to identify training opportunities, areas of capacity (e.g., water, air, land, etc.), and gaps that need to be filled.

All of this work—and other work to come—fuels the AER's environmental engine, allowing us to seize opportunities to fulfill this important part of our mandate.

YEAR IN REVIEW

Our Second Year

Our first full year was largely focused on the complex task of merging the functions of three regulatory bodies into one—a challenge considering that all energy regulation activities in the province had to continue throughout the transition. We also developed our 2014–17 strategic plan, a road map designed to help us arrive at our vision by focusing on our four priorities of being protective, effective, efficient, and credible.

Once we completed our transition to becoming Alberta's single regulator at the end of March 2014, we turned our attention to the even greater challenge of transforming the AER into a regulator that is truly best in class.

Once we completed our transition...we turned our attention to the even greater challenge of transforming the AER into a regulator that is truly best in class.

2014/15 Highlights

The AER reached a number of milestones over the past 12 months, moving us toward achieving the goals in our strategic plan and fulfilling our mandate to ensure the safe, efficient, orderly, and environmentally responsible development of Alberta's oil, oil sands, natural gas and coal resources.

The AER unveiled our Compliance Dashboard, which not only provides daily updates on incidents reported to the regulator, but also includes updates on ongoing investigations and enforcement actions.

We completed our comprehensive audit of Plains Midstream Canada's pipeline operations, reviewing all aspects of Plains's operations and directing the company to make improvements in a number of areas to ensure it complies with AER requirements.

The AER worked with Albertans and companies to resolve energy-related disputes with our alternative dispute resolution (ADR) process in a positive way. On at least 20 occasions, formal concerns about applications were withdrawn due to agreements reached through the ADR process.

The AER took swift action in response to several seismic events in the Fox Creek area, and we continue to explore any links between these events and hydraulic fracturing. While these events posed no threat to the public or the environment, the AER responded quickly by issuing an order directing companies to monitor and report seismic activity in the Fox Creek area.

The AER continued to address concerns about odours and **emissions** from heavy oil production facilities in the Peace River region by strengthening requirements and carrying out a series of intensive inspections that we refer to as "**compliance sweeps**." Since we started this program in June 2014, we completed 742 inspections related to the Peace River proceeding, 729 of which demonstrated that companies were complying with our regulations. When companies failed to comply with our requirements, we acted quickly, shutting in sites when needed. We will continue to monitor industry compliance in this area. See page 22 for more information on air emissions.

We focused on efficiency by reducing duplication and finding new ways to conduct our work while ensuring we continue to protect public safety and the environment. Such efforts have resulted in more than $270 million in annual cost savings for operators.

We launched the Best-in-Class Project, to help identify the key attributes of a world-class regulator....

We strengthened our relations at home and abroad by working in partnership with other jurisdictions such as the Northwest Territories, British Columbia, and Mexico; we formed a new agreement with the Dutch environmental organization Deltares, which will provide expertise on environmental protection and water management. At the same time, we have promoted collaboration and knowledge sharing among western Canadian regulators with the launch of the Western Regulators' Forum (page 54).

We launched the Best-in-Class Project to help identify the key attributes of a world-class regulator, understand how the AER can adopt these attributes, and measure our progress.

» *Year in Review*
HIGHLIGHTS

COMPLIANCE DASHBOARD

The AER launched a new tool with information on incidents, our compliance and enforcement activities, and investigations.

PEACE RIVER COMPLIANCE SWEEPS

Following through on our commitments from last year's Peace River proceeding, we conducted "compliance sweeps" to ensure that industry is complying with the new rules. We continue to monitor compliance and work with the community to deliver on all of the recommendations.

PLAINS AUDIT

The AER completed its audit of Plains Midstream Canada's operations in Alberta following instances of noncompliance and several significant pipeline incidents. The AER's audit identified key areas for improvement and made it clear the company has to comply with our pipeline requirements.

RESPONSE TO SEISMIC EVENTS

We created new seismic monitoring and reporting requirements for oil and gas operations in the Fox Creek area. We now have thresholds for when to report seismic events and when to invoke a response plan or halt activity entirely.

TAILINGS MANAGEMENT FRAMEWORK

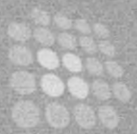
To support the Government of Alberta's Tailings Management Framework, we are developing new regulatory tools to ensure that oil sands tailings are appropriately managed and that all environmental requirements are met.

MULTISTAKEHOLDER ENGAGEMENT ADVISORY COMMITTEE

We established a multistakeholder engagement advisory committee whose members represent environmental nongovernmental organizations, landowners, community groups, First Nations and Métis groups, and others to create more opportunities for open communication with our stakeholders.

PLAY-BASED REGULATION PILOT

We carried out the play-based regulation pilot: a first step towards a new framework for regulating oil and gas development. The pilot will help develop new regulatory requirements for unconventional oil and gas development that addresses cumulative effects and encourages collaboration among operators.



RECLAMATION CERTIFICATE INSPECTION

With new responsibilities for overseeing reclamation, we completed our first reclamation certificate inspection, ensuring that industry is meeting its reclamation commitments.

» *Year in Review* HIGHLIGHTS

TAKING ON ENVIRONMENTAL IMPACT ASSESSMENTS

As the final step in our transition to becoming the single energy regulator in Alberta, we have begun reviewing environmental impact assessments (EIAs) associated with new energy developments.

MAKING IMPROVEMENTS IN PIPELINE SAFETY

The AER has begun implementing the six recommendations made by the Auditor General of Alberta's pipeline safety audit. With a focus on enhancing staff training, enhancing surveillance, and establishing performance measures and targets, we're committed to improving our performance.

WESTERN REGULATORS' FORUM

With the BC Oil and Gas Commission, the Saskatchewan Department of Economy, and the National Energy Board, we created the Western Regulators' Forum to strengthen energy regulation in western Canada with a focus on flaring, venting, emissions, wellbore integrity, and pipeline safety.

WINTER DRILLING

The AER launched a new program that significantly improved processing times for applications during the winter drilling season. We achieved our targets during the 2014/15 winter drilling season, meeting our turnaround time for applications 97 per cent of the time.

AGREEMENTS WITH MEXICO, THE N.W.T., AND DELTARES

We forged three new partnerships with our peers, signing memorandums of understanding with Mexico's energy regulator, the Government of the Northwest Territories, and the Dutch water research institute Deltares.

RESPONDING TO CONCERNS AND RESOLVING ISSUES

Through our alternative dispute resolution (ADR) process, we helped Albertans and companies resolve disputes in a positive way. Last year, at least 20 formal concerns were resolved due to agreements reached through ADR, and three hearings were cancelled.

COST SAVINGS THROUGH EFFICIENCY

In our 2014–17 strategic plan, we committed to reducing industry costs by $60 million in the 2014/15 year; we actually reduced costs by $270 million.

DAM SAFETY INSPECTION PROGRAM

Receiving responsibility for dams related to energy resource development in 2014, the AER takes dam safety seriously. Responding to the Auditor General of Alberta's recommendations, the AER launched a program to inspect the 65 AER-regulated dams by the end of October 2015 and make the results available to the public.

2014/15 PROGRESS REPORT

To become best in class and to deliver on the priorities set out in our 2014–17 strategic plan, we must achieve results and report on our progress. This means demonstrating how we've ensured public safety and protected the environment, how we've been effective and efficient in ensuring compliance, how we've engaged our stakeholders, and whether Albertans are confident in the AER.

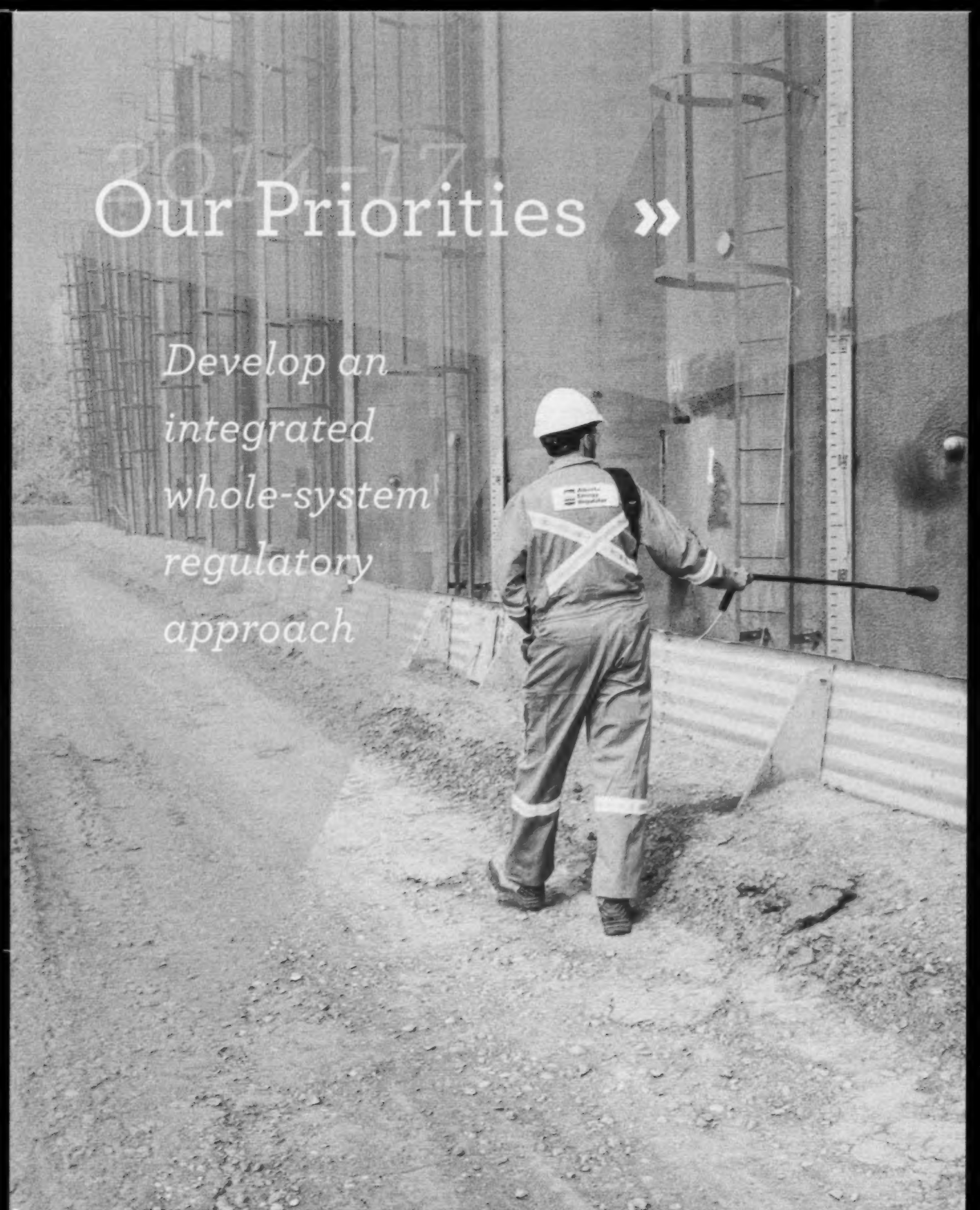
	Measure
PROTECTIVE **Develop an integrated whole-system regulatory approach**	Volume of all water (fresh, saline, and recycled) used for oil, oil sands, and gas operations
	Volume of gas flared and vented from oil and gas operations
EFFECTIVE **Strengthen risk-based regulation**	Proportion of inactive wells meeting current requirements
	Adoption of risk-based regulation to respond to changes in technology and complexity in oil sands development
	Number of incidents per kilometre of pipelines regulated by the AER
EFFICIENT **Transform Alberta's energy regulatory system to improve efficiency**	Regulatory process efficiencies
	Relevant regulatory requirements
CREDIBLE **Increase trust and confidence in how energy is developed in Alberta**	Percentage of Albertans confident that oil and gas development is occurring responsibly
	Stakeholder rating of AER performance in key areas of concern
	Recommendations for best-in-class performance

Last year, we identified performance measures and targets that align with our priorities; these are guideposts to help AER define success and demonstrate the results of our actions. As we complete the first full year of our journey, we are refining our targets and measures and assessing where we need improve our performance. In some cases we have made changes to our strategic plan to better refine our targets.

You can see the updated strategic plan on page 70.

Target	Status ✓
Work with Government of Alberta to establish requirements for water use in energy resource development	Work continues on managing water use for energy development by building a performance dashboard for water use that will inform requirements for reduction
Implementation of regulations aligned with Alberta's Tailings Management Framework	Tailings Management Framework released by Government of Alberta in March 2015; a new directive will be in place by December 2015
Flaring levels are within provincial guidelines	Total gas flared was within the provincial guidelines (670 cubic metres) at approximately 485 million cubic metres; gas vented was an estimated 445 million cubic metres*
	The AER continues to support an integrated approach to resource development through the Government of Alberta's IRMS
100 per cent of high-risk inactive wells meet AER suspension requirements	Of the 227 high-risk inactive wells in Alberta as of April 2014, 218 (96 per cent) were brought into compliance with AER requirements by the end of April 2015
Complete shallow SAGD integrity study	An AER study into reservoir containment is nearing completion and will be released in 2015
Pipeline incident rate reduced by 4 per cent	The pipeline incident rate increased from 1.4 per 1000 km in 2013 to 1.6 per 1000 km in 2014
$60 million in verified savings; year one	The AER achieved $270 million in verified annual cost savings in 2014/15
Complete a full regulatory review to identify and execute opportunities for consolidation and simplification	We simplified our processes and reduced overlap in regulatory requirements that resulted in improved efficiencies
10 per cent increase in awareness of the AER and its role in regulating energy development in Alberta	41 per cent of Albertans are aware of the AER and its role in regulating oil and gas development, an increase of 9 per cent
10 per cent increase in positive perceptions/ rankings of AER performance	In 2015, 77 per cent of Albertans expressed confidence in the AER's ability to fulfill its mandate
Completion and release of recommendations in 2015	Recommendations for best-in-class performance will be delivered to the AER in summer 2015

* A technical review of the data is underway and numbers will be confirmed with the publication of *ST60B: Upstream Petroleum Industry Flaring and Venting.*



2014-17

Our Priorities »

Develop an integrated whole-system regulatory approach

PROTECTIVE

Regulating a world-class energy resource is a huge responsibility, which is why the first priority of our strategic plan is to be **protective**—we will protect the public and the environment.

The AER recognizes that any industrial activity carries risks. Strong and effective rules at every stage of oil, gas, and coal development can minimize these risks.

The AER regulates Alberta's energy resource development to respond quickly and effectively to new technologies, changing market conditions, and any potential risks.

Emerging technologies employed by oil and gas companies drive the intensity and scale of oil and gas development, and we must always respond with new approaches to energy regulation. The AER is addressing cumulative impacts and aligning with the Government of Alberta's Integrated Resource Management System as part of the decision-making process for approving oil and gas development. We focus on what Albertans have told us matters most to them:

- public safety,
- protecting our water resources,
- protecting the land,
- making sure companies follow safety and environmental requirements, and
- enforcing compliance when those requirements are not met.

We do this by undertaking regulatory projects that deliver measurable results in environmental performance, increase our ability to ensure public safety, and help us reduce cumulative impacts. We work to exceed our mandate by strategically focusing on key projects.

What We Accomplished

In our 2014–17 strategic plan, we committed to achieving specific goals to ensure that the AER continues to be a protective regulator. Although the strategic plan stretches over three years, we are pleased to report that we accomplished many goals in the first year.

Reclamation Certificate

The AER took another major step as a full life-cycle energy regulator in October 2014 when we completed our first **reclamation certificate inquiry** at the site of a former coal mine west of Edmonton. This involved verifying that the company

completed the required work and by examining all vegetation on the land from trees to grasses and wetland plants.

Companies must submit reclamation plans when they apply under the ***Environmental Protection and Enhancement Act*** for any energy development—regardless of size—to specify how they will return the land to an equivalent land capability. This means that once reclamation is complete, the AER requires that the land will be able to support the various uses that existed before the project began—we expect nothing less.

The AER requires that all technologies used to burn waste gas be designed to meet the province's Alberta Ambient Air Quality Objectives and Guidelines.

Air Emissions

Last year, the AER changed the requirements in *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting* to prohibit odours and releases from travelling off oil and gas development sites, in addition to requiring gas conservation, even in cases where it might not be economical to do so. These changes give the AER additional enforcement authority to ensure that all our requirements are met.

Before **flaring** or **incinerating** waste gas, companies must consider economical alternatives and the environmental impacts and benefits of eliminating or reducing flares. The AER requires that all technologies used to burn waste gas be designed to meet the province's ***Alberta Ambient Air Quality Objectives and Guidelines***. Recognizing the long-term and environmental impacts of flaring and **venting** gas, the AER's goal is to ensure that oil and gas operations adhere to these air quality guidelines.

Flaring and venting limits for 2014 were within the provincial guidelines of 670 cubic metres per year, with total gas flared at approximately 485 million cubic

PROTECTIVE

metres, down from 495 cubic metres in 2013. Total gas vented was an estimated 445 million cubic metres, an increase from 403 million cubic metres in 2013. The increase in venting volumes is due to increases in heavy oil production in 2014. These estimates are currently under technical review by the AER and will be confirmed and released in September 2015.

Action in Peace River

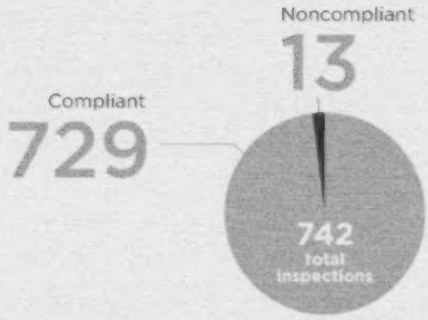
The AER is committed to ensuring that operators meet all requirements for flaring and venting across the province and has carried out a number of "compliance sweeps" (that is, targeted inspections focused on a small geographic area) in the Peace River region. During four periods between June 2014 and February 2015, teams of AER inspectors conducted 742 inspections of oil and gas facilities to make sure companies were complying with *Directive 060*. Of those inspections, 729 sites were in compliance. When companies failed to comply with our requirements, we acted quickly, shutting in sites when required. Results of these sweeps can be found at www.aer.ca.

Plains Midstream Audit

In August 2013, following a number of pipeline incidents and other compliance problems, the AER conducted a thorough audit of Plains Midstream Canada's pipeline operations under a section 22 order of the *Oil and Gas Conservation Act*. The audit examined all aspects of Plains's operations, and the AER directed the company to make improvements in a number of areas in order to ensure compliance with AER requirements.

The AER will continue to focus on the company's operations and will follow up in 2015 to verify that it continues to improve pipeline safety and is complying with all AER requirements.

PEACE RIVER COMPLIANCE SWEEPS



Play-based Regulation Pilot

Play-based regulation is one of the systems the AER plans to use to address changes in the intensity and scale of oil and gas development that result from the use of new technologies, such as multistage hydraulic fracturing. Over the past 12 months, the AER has carried out a play-based regulation pilot project in the Fox Creek area to test its effectiveness.

Through this pilot, the AER accepted single-project applications for multiple energy development activities; applicants were required to engage stakeholders for the entire project plan instead of for each individual well, as is the case in the traditional regulatory system. Discussing the plan for the entire project allows local residents to get a better picture of a project's impacts, helping them to understand the long-term effects of any agreements they reach with an applicant.

This also leads to a better understanding of a project's cumulative impacts beforehand, which, in turn, allows companies to consider different options to reduce these impacts. To that end, the AER, along with our government partners in the Integrated Resource Management System (IRMS), have developed a "blueprint" to help

Targets

The 2014–17 strategic plan sets out specific targets and measures. Here is a glimpse at where we are.

Volume of all water (fresh, saline, and recycled) used for oil, oil sands, and gas operations

Volume of gas flared and vented from oil and gas operations

PROTECTIVE

us understand the best ways to assess cumulative effects and implement methods to manage them. Pilot projects such as the one at Fox Creek allow the AER to test ways to mitigate cumulative effects.

The play-based regulation pilot is the first step towards a proposed new framework for regulating oil and gas development. Once the pilot project wraps up by the fall of 2015, the AER will carefully analyze the results and make recommendations for moving this regulatory approach forward to other parts of Alberta.

What's Next

In the year ahead, we will continue to focus on projects such as **tailings** management and industry performance, in addition to working closely with government, to make the AER a stronger, more protective regulator.

Tailings Management

Managing the tailings produced from oil sands mining has been a challenge ever since commercial development began decades ago. Since 2009, tailings management had been governed by *Directive 074: Tailings Performance*

Work with Government of Alberta to establish requirements for water use in energy resource development

Implementation of regulations aligned with Alberta's Tailings Management Framework

Flaring levels are within provincial guidelines

Work continues on managing water use for energy development by building a performance dashboard for water use that will inform requirements for reduction

Tailings Management Framework released by Government of Alberta in March 2015; a new directive will be in place by December 2015

Total gas flared was within the provincial guidelines (670 cubic metres) at approximately 485 million cubic metres; gas vented was an estimated 445 million cubic metres*

The AER continues to support an integrated approach to resource development through the Government of Alberta's IRMS

*A technical review of the data is underway and numbers will be confirmed with the publication of *ST60B: Upstream Petroleum Industry Flaring and Venting.*

We are committed to pursuing opportunities to improve environmental performance around tailings management.

Criteria and Requirements for Oil Sands Mining Schemes. While tailings management improved under *Directive 074*—as operators invest in new technologies, share information and best practices, and work to meet regulatory requirements for reducing tailings volumes and managing the landscape—more can be done. This past March, the Government of Alberta released a new policy to provide direction for managing fluid tailings volumes during mining operations and long after activities cease. The **Tailings Management Framework** represents an evolution in how industry, the AER, and government manage the risks of both existing and new tailings ponds, and focuses on progressive reclamation.

The AER is responsible for applying this government policy in the field by drafting and enforcing new regulatory requirements. We are committed to pursuing opportunities to improve environmental performance around tailings management. Developing these requirements will require thoughtful analysis and careful implementation, with an end goal of reducing the environmental footprint inherent with tailings, and ultimately ensuring that the land can be reclaimed.

We expect to have new requirements by the end of 2015. During this transition period, operators are expected to continue to proactively manage fluid tailings volumes, as they have been doing for several years. We will engage our stakeholders and update all Albertans as we implement regulatory requirements for this new policy.

Dam Safety Inspection Program

This past March, the Auditor General of Alberta released an audit of Alberta Environment and Parks's management of the province's Dam Safety Program. In 2014, the AER accepted responsibility for the regulation of all dams related to development of Alberta's energy resources. The transition of these responsibilities was completed in September

PROTECTIVE

2014, and the AER now regulates 65 of the approximately 1500 dams in Alberta. Forty of those 65 dams are related to oil sands development while the remaining 25 are related to coal mining.

The AER has begun a thorough inspection program to ensure the integrity of all AER-regulated dams. We expect to complete the program by the end of October 2015 and the results will be made public.

Integrated Resource Management System

While the AER is the single regulator for oil and gas development in Alberta, we don't operate in a silo. We are a part of an Integrated Resource Management System (IRMS), to manage resources in the province. This includes:

- the Government of Alberta, which sets policy;
- the Alberta Environmental Monitoring, Evaluation and Reporting Agency, which provides data and information;
- the Aboriginal Consultation Office, which manages First Nations consultation on behalf of the government; and
- the Policy Management Office, which is the key interface between government and the AER on policy issues related to energy development.

We will continue to work to strengthen the IRMS and take into consideration the combined effects of existing and future development, while achieving environmental, economic, and social outcomes from resource development.

SHINING A LIGHT ON INDUSTRY COMPLIANCE

As part of our work in becoming a best-in-class regulator, the AER needs to do more than ensure that appropriate requirements are in place: we need to communicate how we are enforcing those requirements in a way that will make Albertans feel confident in our ability as an energy regulator.

The AER's new Compliance Dashboard, unveiled in February 2015, gives Albertans a better picture of how we regulate oil and gas development and enforce our requirements. Found at www.aer.ca, the dashboard includes information on

- incidents, including those reported through the incident reporting tool since its launch in June 2013;
- investigations, including those transferred from Alberta Environment and Parks, and any investigation closed as of July 2014; and
- compliance activities and enforcement actions that go back to July 2014.

As described by our president and chief executive officer, Jim Ellis, "We wanted this information online—easy to access, easy to read, easy to search. It's a spotlight, not just on industry, but on the AER as well."

The AER historically has made such information available through the *Freedom of Information and Protection of Privacy Act* (*FOIPPA*) process. We wanted to make that same information available more broadly to the public without requiring Albertans to engage *FOIPPA*.

The AER conducts thousands of compliance activities each year. For example, we follow up with companies when they fail to conduct instrument tests on a regular basis, accurately measure flare gas volumes, or engage local authorities for planning purposes.

The dashboard highlights the noncompliances that have the potential to impact public safety, the environment, and resource conservation.

The AER continuously strives to improve public reporting to ensure transparency and ease of use. In that spirit, the Compliance Dashboard improves on (and replaces) the AER publication *ST108: AER Monthly Action Summary* and the online incident-reporting tool.

2016–17 Our Priorities »

Strengthen risk-based regulation

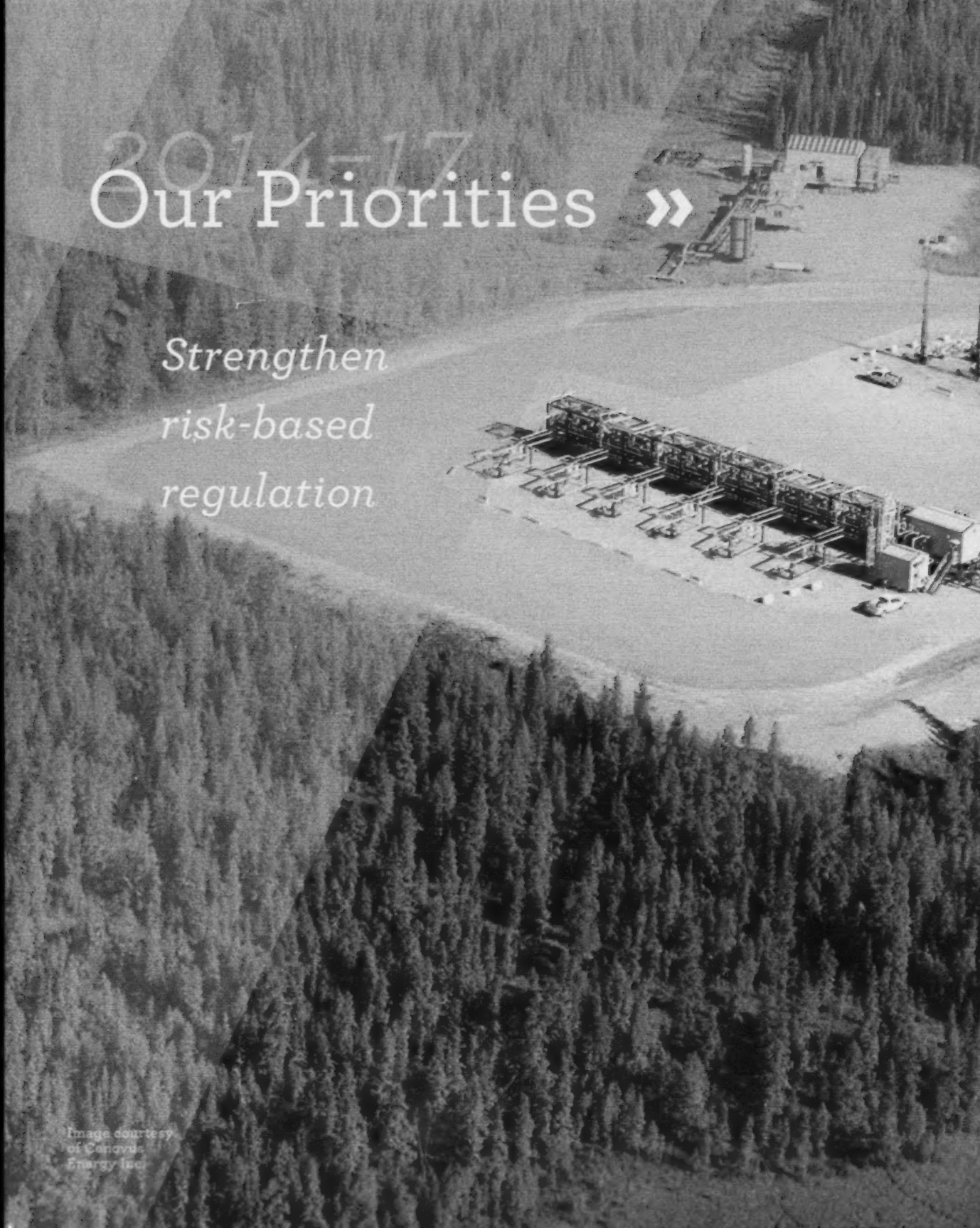


Image courtesy of Canova Energy Inc.

EFFECTIVE

The AER regulates development in a way that reduces risks and ensures that Albertans reap the economic rewards of our energy resources. We know we must effectively manage the crude oil, gas, bitumen, natural gas liquids, and coal on behalf of Albertans, who own these resources.

It's about understanding our resources—where they are, how much we have—and how to ensure they are developed in a safe, environmentally responsible manner. It's also about protecting Albertans from the risk of financial liability associated with aging oil and gas infrastructure, especially when companies become bankrupt.

To do this, we must focus on **risk-based regulation**. Risk-based regulation means that regulatory activities are prioritized so that the most significant risks receive the greatest attention. Put simply, the higher the risk, the greater our attention.

To become a more effective regulator, the AER will continue to put our risk-based approach into action. We will focus on projects that

- reduce risks to public safety and the environment,
- limit the financial risks to Albertans,
- effectively manage resource conservation, and
- improve industry performance.

Last year, we saw progress on a number of projects, in addition to pipeline safety and the Inactive Well Compliance Program (IWCP), while also responding to seismic events in the Fox Creek area.

What We Accomplished

Becoming a more effective regulator is a priority in our 2014–17 strategic plan. One year into this plan, we're making good on our promises.

Inactive Well Compliance Program

Alberta has a large number of inactive wells. An inactive well—one that has been suspended and is no longer producing—does not necessarily pose a risk to public safety or the environment. However, inactive wells that are close to where people live or work, are leaking, or contain a hazardous substance (for example, hydrogen sulphide gas) are considered high risk.

When the AER was created in June 2013, companies were failing to comply with the requirements of *Directive 013: Suspension Requirements for Wells* on

close to half of Alberta's inactive wells (about 37 000); less than 1 per cent, or 227 wells, were considered high risk.

The AER launched the IWCP in July 2014 to ensure that all inactive wells are safe and secure. The IWCP is addressing the backlog of inactive noncompliant wells in Alberta by requiring companies to bring 20 per cent of these into compliance each year. At that rate, we expect all inactive wells will comply with AER requirements within five years. We started by addressing high-risk wells, and by the end of April 2015, we reduced these by 96 per cent, and we are well on our way to reaching our strategic-plan target of 100 per cent by 2017.

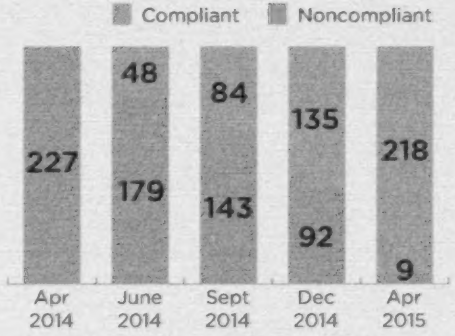
In addition to managing the backlog, the AER will require companies to prevent the growth of noncompliant inactive wells to ensure that all inactive wells meet the requirements and timeframes of *Directive 013*. We conduct random audits and field inspections to verify industry compliance.

Pipeline Safety Recommendations

Pipeline safety is a top concern for Albertans, and we constantly work to further reduce pipeline incidents across the province through inspections, investigations, education, and audits.

...by the end of April 2015, we reduced inactive wells by 96 per cent, and we are well on our way to reaching our strategic-plan target of 100 per cent by 2017.

HIGH RISK INACTIVE WELLS



EFFECTIVE

What's more, if the AER sees that a pipeline operation is (or is at risk of) causing unacceptable impacts to public safety or the environment, we can, and do, order an immediate suspension of operations until the problems are corrected. We also require pipeline operators to report all pipeline incidents, including breaks, test failures, and external contact with a pipeline—regardless of whether there is an actual leak.

In 2014, the pipeline incident rate was 1.6 per 1000 kilometres, up from 1.4 in 2013. This increase is in large part due to both the AER focusing more attention on the pipeline sector through inspections and education, and operators doing a better job of checking their lines and reporting any problems. While the overall incident rate was up, most of that increase were smaller incidents with limited environmental impacts; there were fewer large pipeline releases in 2014. Now that we've increased our scrutiny of this sector, we will continue to work with industry to reduce the number of incidents in Alberta's pipelines.

In the March 2015 report of the Auditor General of Alberta, the pipeline safety audit found that the AER has well-functioning pipeline regulations, noting that "Albertans can be assured that the regulator is performing its essential function of overseeing pipeline safety and reliability in Alberta."

This audit made six recommendations for improvement that focused on surveillance and enforcement activities, which included

- using risk-management activities to make informed decisions;
- formalizing a training program for our core pipeline staff;
- identifying performance measures and targets;
- expanding our analysis of factors that contribute to pipeline incidents, beyond the primary causes;
- assessing the type of data we require from pipeline operators to help make effective decisions, as well as the way we collect this data; and
- implementing a risk-based compliance process to evaluate the safety and loss-management systems and integrity-management programs of pipeline operators.

The AER welcomes any process that may further improve pipeline safety in Alberta, and we accepted all recommendations. We have already begun implementing changes, including improvements in surveillance and enforcement, establishing performance measures and targets, and enhanced training for AER staff.

Seismic Events: "Traffic-light" Protocol

This past January, the AER recorded several seismic events in the Fox Creek area that might have been related to hydraulic fracturing.

While these events posed no threat to the public or the environment, the AER took precautionary measures to ensure that energy resources are developed safely and responsibly. AER experts responded quickly by issuing an order directing companies to monitor and report seismic activity in the Fox Creek area.

This "traffic light" process defines the stages at which companies need to take action when seismic activity is observed, which could include reporting events

AER TRAFFIC LIGHT SYSTEM – DUVERNAY ZONE, FOX CREEK

> $4.0M_L$*
cease operations, inform the AER

> $2.0M_L$
inform the AER, invoke response plan

< $2.0M_L$
no action required

*M_L = **Local magnitude**.

Targets

The 2014–17 strategic plan sets out specific targets and measures. Here is a glimpse at where we are.

Proportion of inactive wells meeting current requirements

Adoption of risk-based regulation to respond to changes in technology and complexity in oil sands development

Number of incidents per kilometre of pipelines regulated by the AER

EFFECTIVE

to the AER, implementing response plans, and halting operations altogether, depending on the level of seismic activity. See page 39 for more information.

What's Next

We are stepping up our efforts to help us become a more effective regulatory body. Among other initiatives, we will continue to focus on reservoir containment, address Alberta's inactive wells, ensure that dams under our jurisdiction are safe, and work with peer regulators from western Canada on a **pipeline integrity management project**.

Reservoir Containment Project

The AER is committed to making the regulatory system more efficient and effective while addressing the risks and challenges of today's evolving production technologies (being protective), and this extends to what occurs below the ground.

With the continued growth of in situ bitumen recovery techniques such as **steam-assisted gravity drainage (SAGD)** in the oil sands, ensuring that shallow bitumen deposits can be developed safely continues to be a key priority for an effective regulator.

"Thermal" operations—also called in situ oil sands development—such as SAGD and a similar process called **cyclic steam**

100 per cent of high-risk inactive wells meet AER suspension requirements	Of the 227 high-risk inactive wells in Alberta as of April 2014, 218 (96 per cent) were brought into compliance with AER requirements by the end of April 2015
Complete shallow SAGD integrity study	An AER study into reservoir containment is nearing completion and will be released in 2015
Pipeline incident rate reduced by 4 per cent	The pipeline incident rate increased from 1.4 per 1000 km in 2013 to 1.6 per 1000 km in 2014

stimulation (CSS) uses techniques that produce bitumen by injecting steam into underground oil sands reservoirs to heat bitumen, separate it from the sand, and allow it to be produced.

One challenge of these techniques is making certain that "**caprock**"—a relatively impermeable rock, such as shale, that forms a barrier above and around a bitumen deposit to prevent fluids from migrating beyond the reservoir—maintains its integrity in order to contain the bitumen within the reservoir. Our Reservoir Containment Project will establish formal requirements for reservoir containment in areas where shallow thermal projects occur.

As part of our commitment to being a protective regulator, we use a risk-based model of regulation to place more attention on higher-risk activities. The AER is currently reviewing our shallow thermal development approval criteria and has deferred decisions related to applications from five companies. Once the criteria is established, the AER will reassess the applications.

The AER has completed thorough technical work to ensure that risks are well understood and that outcomes will be protective and effective; we've engaged industry and independent consultants to review and provide feedback on this work. We will have draft requirements ready for stakeholder consultation in 2015.

While we complete our work, applications for thermal projects are assessed case by case. Applicants must submit a reservoir containment study proving that a project can operate safely and set a **maximum operating pressure** for the project.

Protecting Albertans from Abandonment and Reclamation Costs

In 2014, the AER updated our Licensee Liability Rating (LLR) program, which protects Albertans from the cost to abandon and reclaim upstream oil and gas wells, facilities, pipelines, and their associated sites. The program is based on a comparison of assets (which is based on production) to liabilities (abandonment and reclamation costs). When this ratio falls below 1.0, the licensee owes financial security.

Implemented in a three-phased approach, the changes were introduced to address concerns that the previous LLR program greatly underestimated the cost of abandonment and reclamation liabilities.

EFFECTIVE

The changes increased the liability costs and the asset values by one-third in each phase.

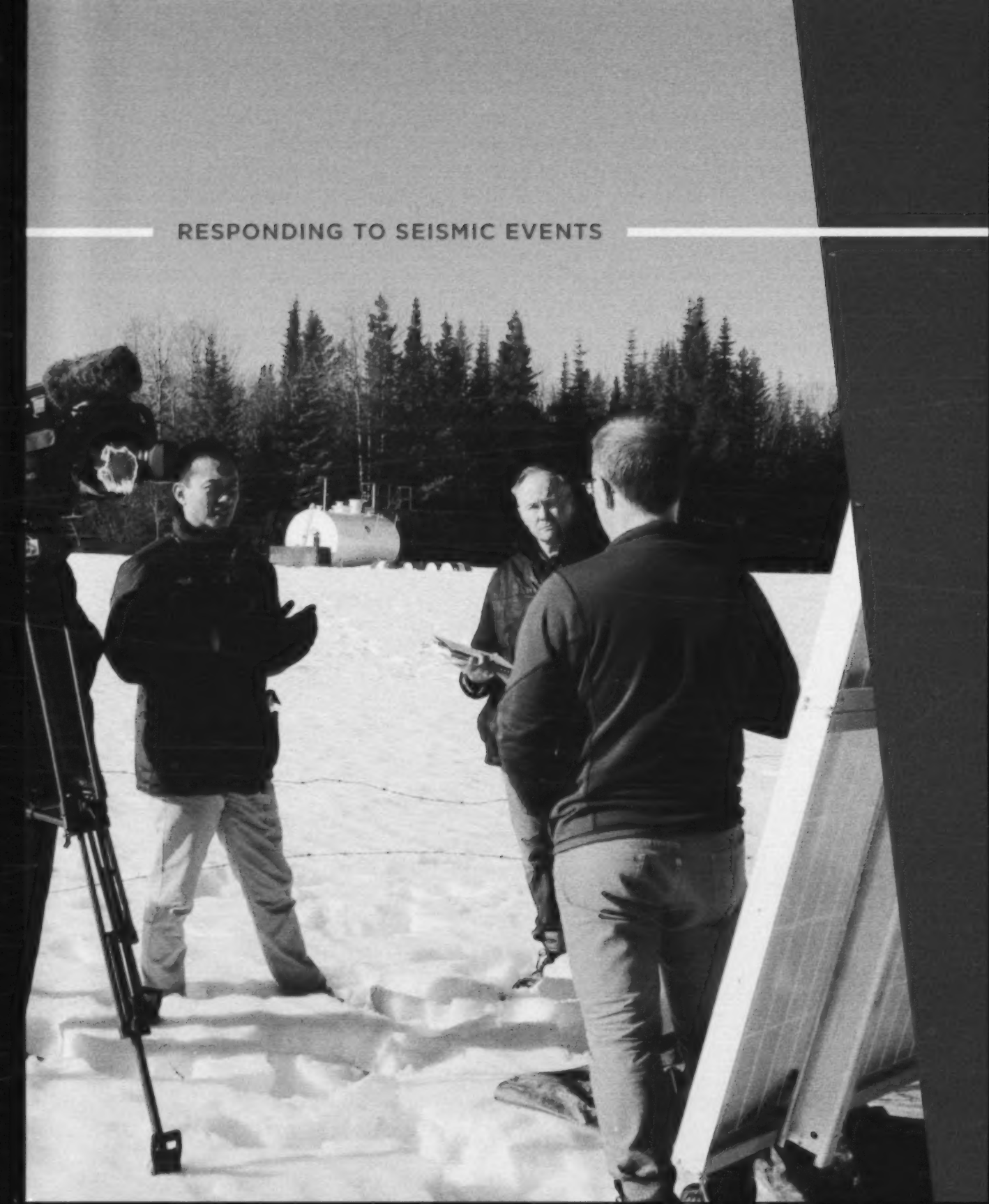
Each phase of the changes required some licensees to pay financial security. However, when it came time to implement the final phase of the changes, it became apparent that they could result in 110 companies owing an additional $22.2 million of financial security, meaning that some companies would not have the means to pay the additional security. Although this phase requires the least security to be paid, the climate of low oil prices made it more difficult for licensees to meet the payment.

We delayed this final phase by three months to give companies—particularly small companies—time to assess their options to comply with changes to the LLR program, enhancing their ability to remain financially viable. Financially viable companies are less likely to fail and create orphan wells, facilities, and pipelines, which the industry-funded Orphan Well Association (OWA) then pays to abandon and reclaim. The additional time provided to companies is also intended to minimize financial risks to OWA, which protects Albertans from the cost to abandon and reclaim upstream orphaned oil and gas infrastructure.

The OWA manages the abandonment and reclamation of orphaned oil and gas wells, facilities, pipelines, and their associated sites. This not-for-profit organization—unique to Alberta—is funded by the annual orphan levy, which is collected from industry by the AER on behalf of the OWA. In March 2015, the AER collected a $15 million levy.

The OWA sets the annual levy amount, in consultation with the Canadian Association of Petroleum Producers and the Explorers and Producers Association of Canada. It is based on the estimated cost of abandonment and reclamation activities each year.

RESPONDING TO SEISMIC EVENTS



This past January, the AER recorded several seismic events near Fox Creek with magnitudes between 2.4 and 4.4, which might have been related to hydraulic fracturing in the area.

While these events posed no threat to the public, infrastructure, or the environment, as a regulator, it's our job to take precautionary measures to ensure that energy resources are developed safely and responsibly.

We immediately called upon the services of many technical experts who work at the AER, in particular, geoscientists from the Alberta Geological Survey (AGS), who are responsible for monitoring seismic activity in Alberta.

AER experts responded quickly by issuing Subsurface Order No. 2 that spelled out how companies operating in the Duvernay geological zone in the Fox Creek area must monitor and report seismic activity. This "traffic light" process defines the stages at which operators need to take action when seismic activity is observed; depending on the level of seismic activity, operators might need to report events to the AER, implement response plans, and, at certain levels, cease operations altogether.

The traffic light system requires companies in the area covered by Subsurface Order No. 2 to prepare a hazard assessment, monitor local seismic activity around their operations, and have a seismic-event response plan.

- If no seismic events above a 2.0 local magnitude (M_L) are observed by the company within 5 km of operations, the traffic light is green and industry operations at that site continue as normal.
- If a seismic event above a 2.0 M_L is observed within 5 km of operations, the traffic light is yellow and the industry company must invoke their seismic-event response plan and notify the AER.
- If a seismic event above a 4.0 M_L is observed within 5 km of operations, the traffic light is red and operations must cease until the AER is satisfied that the company can resume operations safely and without likely inducing further seismicity above a 4.0 M_L.

This response is an interim measure until the AER fully studies seismic events in this area and their potential connection with energy development. If the AER becomes aware of similar seismic events elsewhere in the province, we may extend the order to other areas.

» *Environment Matters – Meet Our Chief Environmental Scientist*

Monique Dubé, PH.D.
Chief Environmental Scientist

With the launch of the AER, we were given an expanded mandate to protect the environment. That, in addition to the feedback from Albertans expecting strong environmental performance from industry and the regulator, prompted us to hire an expert to help us fulfill these commitments.

Dr. Monique Dubé, with her 25 years of academic, regulatory, industry, and consulting experience, joined the AER in 2014 to become our first chief environmental scientist and help drive our promise of enhancing industry's environmental performance.

We spoke to Dr. Dubé to learn more about why she chose to be the first person in this role, what her vision for the role is, and to find out how she plans to help us support our environmental mandate and responsibilities.

Q Why did you choose the AER?

I've intentionally worked in diverse areas of environment—in academia, government, and industry and with First Nations—because experiencing alternative perspectives is a priority for me. When the chance to work at the AER arose, especially with its expanded environmental mandate, I saw it as an opportunity to apply my appreciation of diverse perspectives to improving the balance between energy resource development and environmental protection in Alberta.

Q What is the role of the chief environmental scientist?

My role is to provide strategic oversight to the AER that will improve industry's environmental performance. I do this by ensuring that there's awareness of environmental issues facing the energy sector and that environmental issues are represented as part of the balanced conversation.

Q How will your work improve industry's environmental performance?

The key to success is linking industry performance with environmental performance—you cannot have one without the other and expect positive results. As chief environmental scientist, I have established four key outcomes to help achieve this balance:

1. monitor and report on environmental performance,
2. be responsive and adaptive with environmental management,
3. increase cooperation and alignment across the AER for environment, and
4. be recognized for our environmental expertise.

Q What do you see your challenges and priorities being for 2015?

Being new to the organization is one of my challenges. However, I've invested significant time over the past eight months speaking with staff and identifying opportunities that will move the AER's environmental agenda forward in 2015 in the four key outcome areas I just mentioned. I'm pleased to say that work has already begun to clarify the AER's environmental mandate, establish the AER's environmental communities of practice, and form strategic working groups with key government agencies. The other challenge will be to remain focused on these four outcome areas to deliver measurable progress in a constantly evolving industry and environment.

The AER is committed to enhancing environmental performance and protecting what matters most to Albertans: land, water, air, and biodiversity. Our studies show that Albertans feel some progress has been made (45 per cent of those surveyed expressed that environmental performance has improved over the past two years), but we know there's more work to be done and we're committed to delivering on this important priority.

2014–17

Our Priorities »

Transform Alberta's energy regulatory system to improve efficiency

EFFICIENT

One of the Government of Alberta's main goals in creating the AER was to improve Alberta's competitive advantage and to build an environment that attracts investment. One way to accomplish this is to make Alberta's regulatory system as efficient as possible while continuing to enhance our regulatory system and ensure that our requirements protect public safety and the environment.

The AER has already taken on the responsibilities of three good regulators. However, to be a great, single regulator, we must blend the best features of all three to ensure that our people, processes, and systems align.

In this way we can create an efficient regulatory system, ensure certainty for stakeholders, and help secure economic opportunities for Albertans, which will help establish the AER as a credible and trusted regulator. To accomplish this, we must transform the way we do business.

The AER must turn government policy into effective regulatory requirements. We will do that by simplifying the decision-making process and becoming more efficient. We believe that this will lead to improved environmental protection and increase trust and confidence in how Alberta's energy resources are developed.

Achieving efficiencies will not be easy. After decades of multiple regulators overseeing energy resource development, Alberta's regulatory system has become complex, with new rules being added over time.

Our focus on efficiency is not just about saving money but rather reducing duplication and finding new approaches to regulatory oversight. This has included

- eliminating requirements that don't contribute to our mandate,
- no longer gathering information that doesn't serve a regulatory purpose,
- eliminating requirements that became redundant after the Energy Resources Conservation Board and Environment and Sustainable Resource Development merged to form the AER,
- eliminating requirements that have become redundant due to advances in technology,
- shifting our focus to outcome-based requirements (the public safety and environmental outcomes we expect) from prescriptive ones (telling companies how they should operate and design their equipment and processes), and
- upholding our mandate of safeguarding the public and the environment.

The AER will achieve excellence in efficiency while ensuring that we uphold our rigorous requirements for public safety and environmental protection.

What We Accomplished

The AER has identified how we can improve our regulatory system to make it more efficient and introduce more certainty for stakeholders. We've moved quickly, but carefully, to implement such changes.

Regulatory Certainty

In July 2014, the AER announced quicker and more consistent processing times for well applications that fall under the ***Public Lands Act***.

We implemented the first series of process changes in September 2014. These new timelines range from five business days for **temporary field authorizations** to 90 business days for more **complex applications**.

The initial results were better than expected: all major projects were processed within the 90-day timeframe and averaged 62 days, while new oil and gas applications were processed within their 60-day target and averaged 30 days. We met our targets during the 2014/15 winter drilling season; on average, we met the turnaround time for an application 97 per cent of the time.

Targets

The 2014–17 strategic plan sets out specific targets and measures for becoming an efficient regulator. This is where we are after one year.

Regulatory process efficiencies

Relevant regulatory requirements

EFFICIENT

With a new approach and an accountable regulator, our application process is well on its way to being more efficient, effective, and timely.

Finding Efficiencies: Focusing on the Right Priorities

Over the past year, the AER has been finding new ways to eliminate outdated requirements that simply don't serve their initial purpose and changing our internal processes to improve our day-to-day work. We've done this while ensuring that our commitment to safeguard public safety and the environment is our top priority.

Through our **Near-Term Action Program**, we have completed several projects to reduce unnecessary requirements; some of these projects have had welcomed environmental benefits too. By revising outdated rules that address low-risk activities, we've been able to make small changes that create significant impact.

Along with regulatory improvements, we needed to look at our day-to-day operations as well. The **Continuous Improvement Initiative** has helped improve the way we do business and has implemented over 130 improvements during the past year. For example, we have established best practices, new guidelines, and checklists for our various applications and published these on our website. By making these items accessible to everyone, we are being clear and

$60 million in verified savings, year one

Complete a full regulatory review to identify and execute opportunities for consolidation and simplification

The AER achieved $270 million in verified annual cost savings in 2014/15

We simplified our processes and reduced overlap in regulatory requirements that resulted in improved efficiencies

transparent with Albertans about the applications we receive and how they are reviewed. And we have developed a Public Statement of Concerns Application Review process—making sure statements of concerns are handled properly across all application types. This guarantees that when concerns are brought forward by the public, we are better equipped to respond.

So why the focus on efficiency? In today's economic environment, we must make the most of our resources by focusing efforts on what matters most: the safe, efficient, and environmentally responsible development of Alberta's energy resources. While we surpassed our $60 million target in regulatory cost reductions in our first year, our focus is not on the money saved. Rather, our focus is on reducing duplication in outdated requirements and enacting new requirements to meet challenges posed by new technologies, including tougher rules for flaring, venting, and tailings management and managing cumulative effects. This allows our highly trained staff to concentrate on higher-risk activities as well as leading-edge regulatory work such as play-based regulation and our single application, review, and decision approach to resource development.

What's Next

This year, the AER will advance projects that will help us deliver on our vision and transform our regulatory system to better manage the life cycle of energy development activities.

EFFICIENT

One Application, One Review, One Decision: A New Approach to Development

Each year, the AER receives more than 40 000 applications, which can include everything from requests to access a parcel of land, approval to drill a well, to a request to use water. Today, operators may submit 10–30 applications for a single-well development. This also means landowners and other stakeholders must review 10–30 applications. By reducing that number to one comprehensive application, we will provide Albertans with a better picture about what is proposed in their communities.

Single Application

Starting with a few small pilots, we are changing how we approach those many applications. This means we'll accept a single application for multiple activities related to a project that would traditionally be applied for individually.

The AER already posts every application we receive on our website, and the single application will be no different. What is different is that Albertans will be able to see the entire application at once, looking at all the elements of a project, rather than reviewing them one at a time over many months or years. Albertans will have the details up front about the full scope of the energy project, including water use, the impact the project will have on the landscape, and the details of the final reclamation and remediation plan.

Albertans will have the details up front about the full scope of the energy project, including water use, the impact the project will have on the landscape, and the details of the final reclamation and remediation plan.

Those with concerns will continue to have the ability to file a statement of concern with the AER; we will continue to review all statements of concern. In fact, with all of the information available through this process, it will be easier to identify concerns associated with a particular project.

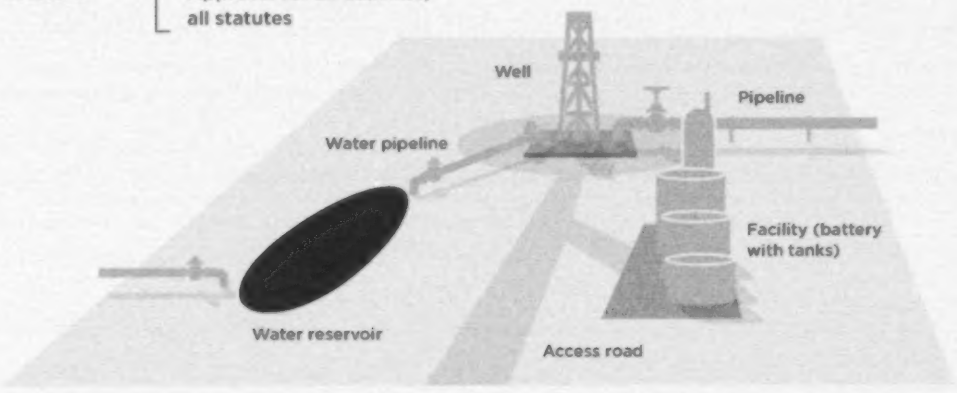
CURRENT APPLICATION PROCESS

2	3	1	4
PER	PER	PER	PER
Well/ compressor	Water reservoir/ pipeline/ facility (battery with tanks)	Access road	Water pipeline

SINGLE APPLICATION PROCESS

1

- Application
- Public notice
- Approval for all activites, all statutes



EFFICIENT

Single Review

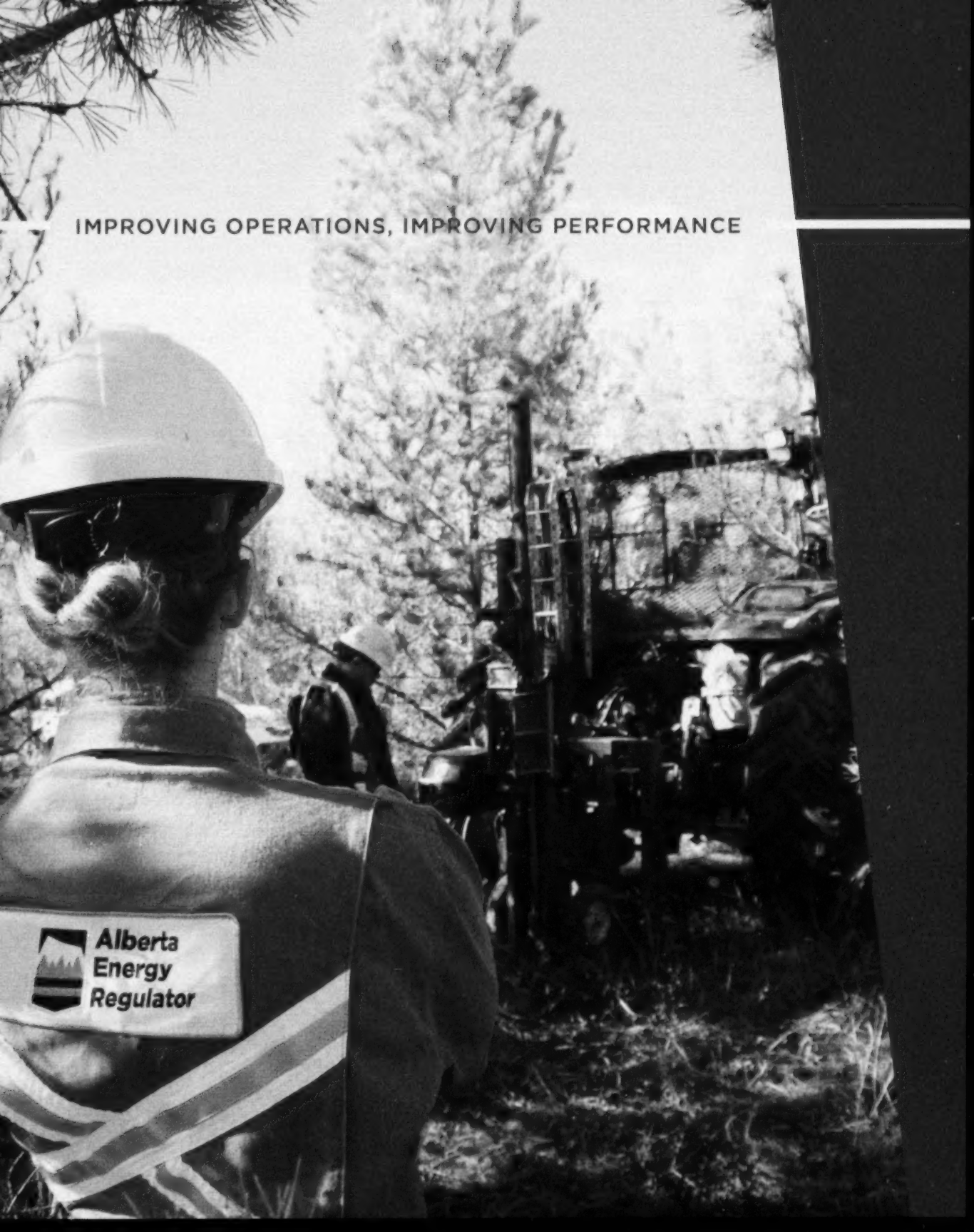
Once we receive the single application, our technical experts will review the details with the same rigour we use for all energy applications. We will examine any risks associated with the project. We will look at the kind of activity, where it is located, and the operator's history, before making any decisions. We will also examine how the operator has engaged with the community, landowners, and First Nations or Métis impacted by the proposed development.

Single Decision

Once we have completed our review, we will make a single decision. If the application meets all AER requirements, we can then issue an approval for the project to proceed. But our work doesn't stop there. Once the project is underway, the AER will continue to monitor it at every stage, including when construction starts, while the project is operating, and when it is ready to close.

This isn't about cutting corners. It's about looking at energy developments from a broader perspective—from beginning to end—and making decisions about energy projects with all of the information up front. It helps you understand the connection between activities being proposed in your community.

As with any new approach to regulation, we have to test it and find any improvements that need to be made. We will be testing this new approach using pilot projects in different areas of the province. The results of these pilots will help us learn more before deciding how to implement it across the province.


IMPROVING OPERATIONS, IMPROVING PERFORMANCE
Alberta
Energy
Regulator

As the AER institutes new requirements to improve industry performance and ensure that public safety and the environment are protected, we're making sure we are as efficient as possible. We've completed a number of projects through our Near-Term Action Program (NTAP).

For example, last October, we revised organic soil conservation requirements, negating the need to disturb the soil in certain areas when preparing to drill a well. This regulatory change reduces a development's footprint while saving time, money, and the landscape.

We've also examined our day-to-day operations. The Continuous Improvement Initiative has helped improve how we do business through over 130 improvements during the past year. For example, we established best practices, new guidelines, and checklists for various applications and published these on our website, allowing Albertans to see how we receive and review applications.

We introduced a system to customize subsurface requirements for specific geological zones in certain areas to better suit the type of resource being developed and exempted companies from seeking a formal approval under the *Pipeline Rules* for temporary surface pipelines transporting water, which is a low-risk activity that is covered as part of the approval for an entire project.

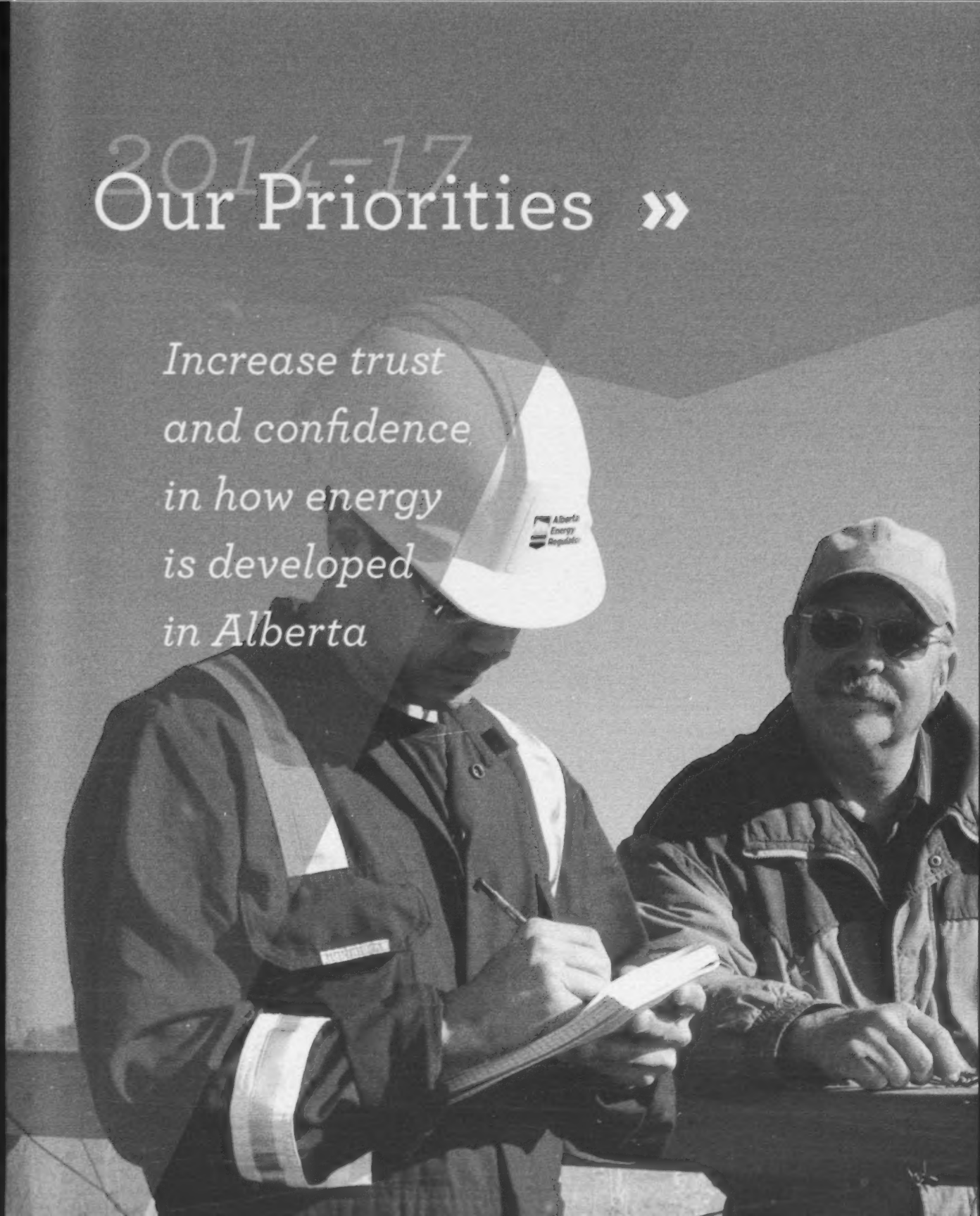
By revising outdated rules and unnecessary processes that address low-risk activities, we've been able to quickly advance small regulatory changes and create significant impacts immediately.

These efficiencies are improving our operations and allow us to deliver regulatory changes that are clear, current, and reduce costs. While this improves Alberta's competitive environment by reducing the regulatory burden, it also allows the AER to focus our efforts on what Albertans expect from the regulator—ensuring public safety, enforcing the rules, and protecting the environment. This means turning our full attention to things like abandoned wells, flaring and venting, and tailings management.

2014–17

Our Priorities »

Increase trust and confidence in how energy is developed in Alberta



CREDIBLE

Being a best-in-class regulator means more than providing best-in-class regulation. It means ensuring that our stakeholders are confident about how energy development is regulated in Alberta.

Our work on the first three priorities of our strategic plan—protective, effective, and efficient—is critical in achieving our vision. But without our final priority, without ensuring we are credible, we will not be successful; if Albertans don't trust us, they will not engage our processes.

That credibility must be earned. We know from years of research that Albertans seek a regulator that enforces the rules and protects the public and the environment. Data collected from surveys conducted over the last decade show that Albertans' top concerns around energy resource development are the safeguarding of water and soil, the protection of human and animal health, and water usage.

We also know that our stakeholders expect, and deserve, a regulator that is transparent, accountable, and approachable.

We understand that the development of Alberta's oil and gas resources attracts international attention. The fact is, the work we do is of interest to people across North America and beyond, as energy development continues to be a source of worldwide debate.

We also know that we must do more than simply regulate well. We have a responsibility to share Alberta's 77-year tradition of strong regulatory oversight of energy development—to tell our story and build relationships with our stakeholders. To achieve this, we must

- report on the results of our work,
- be open to discussing issues of concern with our stakeholders,
- share information about the work that we do, and
- work toward a common definition of what is meant by "best in class."

To do that, we are engaging stakeholders throughout Alberta, across Canada, and beyond to assess what defines best in class and to determine how the AER will meet that standard.

Here at home, we've also improved engagement with stakeholders, raised awareness of our role in energy regulation, increased transparency and accountability, and provided more education about energy development.

What We Accomplished

Being recognized as a credible and trusted regulator is a priority in our 2014–17 strategic plan. We have made many strides in achieving this objective. Ultimately, however, Albertans will let us know if we have achieved credibility.

Helping Address Concerns and Resolve Disputes

Alternative dispute resolution (ADR) is a process that helps Albertans and companies resolve energy-related disputes in a positive way. The AER's team of professional mediators help parties work through contentious issues and promote collaborative solutions that meet everyone's needs.

During the past year, the ADR team was involved in 159 cases, of which 88 per cent were resolved through mediation.

Through our ADR program, energy resource companies are often able to resolve concerns early, simplifying the application process and avoiding formal hearings. Solutions arrived at in mediation are tailor-made for each unique situation and are achieved through consensus. On at least twenty occasions this year, formal concerns about applications were withdrawn due to agreements reached through the ADR process. As well, several potential hearings were avoided through the resolution of disputes in ADR, including two where hearings had already been scheduled.

In some cases, AER hearing commissioners conduct ADR when a hearing or a regulatory appeal is to occur, as defined in the *Responsible Energy Development Act*.

ADR does more than solve issues and address concerns, it makes the overall process more efficient and timely. During the past year, the ADR team was involved in 159 cases, of which 88 per cent were resolved through mediation.

Western Regulators' Forum

The AER launched the Western Regulators' Forum in 2014. This is a working partnership between the AER, the

CREDIBLE

National Energy Board, the BC Oil and Gas Commission, and the Saskatchewan Department of the Economy; the forum aims to strengthen energy regulation through collaboration that will allow all partners to pursue common priorities.

The forum identifies opportunities to collaborate on research, develop regulatory processes and standards, and work together on other areas of shared interest; this in turn helps to ensure that energy regulation in Canada is the best it can be. Through working committees, the forum is focusing on three main projects:

1. Venting, flaring, and emissions – reducing emissions, responding to public concerns, harmonizing regulations around reporting and measurement, aligning with federal initiatives, and managing cumulative air impacts.
2. **Wellbore integrity** – harmonizing standards around design, construction, maintenance, and testing and abandonment and ensuring that these standards are reviewed and updated.
3. Pipeline safety indicators – identifying common pipeline safety performance metrics using industry-reported data.

This forum is another avenue that can help the AER make certain that we achieve our strategic priorities of being protective, effective, efficient, and credible.

Open and Transparent Communication

The AER's strategic plan involves sharing Alberta's regulatory story, here in Alberta, across Canada, and worldwide.

Last year we published our first annual report and companion materials, such as the *Report to Albertans*, which was distributed province-wide. We also enhanced our social media presence in an effort to make the AER a more open and transparent organization.

We are continuing to communicate with Albertans and recently added a new external newsletter. *AER Focus* is a quarterly newsletter meant to inform our public, industry, and other stakeholders about projects and activities that demonstrate how we're meeting the goals of our strategic plan. *AER Focus* is available on our website, and anyone can subscribe to receive an e-mail version.

AER'S PAUL FERENSOWICZ RECEIVES THE GOLD CROSS OF MERIT OF THE REPUBLIC OF POLAND

While the AER is fueled by teamwork, and hard work is appreciated and shared across the organization, it is still important to recognize extraordinary individual achievement, especially when the honour originates far from Canadian soil.

In May 2015, Paul Ferensowicz, a senior advisor with Corporate Planning and Enterprise Projects, received the Gold Cross of Merit of the Republic of Poland for sharing knowledge and expertise on Alberta's regulatory regime.

The Order of Merit was established in 1923, and is awarded primarily to Poles who have made significant contributions in service to the state. Paul received the prestigious accolade from Ambassador Marcin Bosacki on behalf of the President of Poland during a special ceremony in Ottawa commemorating the 224-year anniversary of Poland's constitution and the 70-year anniversary of the end of World War II.

Over the course of five years, working closely with the Polish Minister of Foreign Affairs, Paul drew on his expertise and those of his AER colleagues to inform various officials on the workings of Alberta's regulatory framework. Notably, in 2011, Paul spent three weeks meeting with the Polish government, municipalities, and industry organizations, providing insight into potential shale gas development in the region. Poland is in the early stages of developing its energy resources and has welcomed the opportunity to collaborate with a modern, fully functioning regulatory body.

The AER has hosted a number of delegations from Poland, sharing regulatory knowledge, discussing opportunities and risks related to energy development, and networking with key officials. The success of these gatherings is clearly evident, as two more Polish delegations have already planned a visit in summer 2015.

Poland's Gold Cross of Merit is a world-class achievement, and we're proud to see it given to Paul Ferensowicz, a first-class individual and member of the AER. He is quick to point out, however, that the honour is a reflection of the technical knowledge and excellence that resides within the entire organization—highlighting the exemplary team efforts that are crucial to being a best-in-class regulator.

CREDIBLE

The AER also continued to provide provincial, national, and international media outlets with opportunities to see how we regulate the oil and gas industry. These included media "ride-alongs" for the Peace River compliance sweeps, editorial boards for the 2013/14 annual report, a media tour to in situ operations in northeast Alberta, and year-end interviews with our CEO.

What Albertans say matters to us. Data collected from public opinion research conducted over more than a decade show that Albertans' top concerns around energy resource development are the protection of water and soil, the protection of human and animal health, and water usage. They expect the regulator to remain consistent in ensuring public safety (89 per cent), enforcing the rules (85 per cent), ensuring appropriate emergency response (84 per cent), and protecting the environment (82 per cent). The majority of Albertans (77 per cent) expressed confidence in the regulator's ability to carry out its mandate. While the AER is pleased with confidence levels, we continue to strive for improvements, especially in key performance areas such as enforcement of requirements, protecting the environment, and becoming more transparent.

Awareness of the AER is important to ensure that Albertans understand how oil and gas development is regulated so that they can make informed decisions about our performance. Awareness increased by nine per cent in 2015, with 41 per cent of Albertans responding that they are aware of the AER and our role.

This research provides the AER with more than just a report card of how we're doing—it helps us better understand what is important to Albertans, what information they want from the regulator, and how we can improve our performance over time.

The AER continues to strive for improvements, especially in key performance areas such as enforcement of requirements, protecting the environment, and becoming more transparent.

Developing relationships and partnerships with other regulators has also been important to the AER. We are strengthening our ties with regulators across Canada, in the United States, and beyond.

Formalizing National and International Relationships

Developing relationships and partnerships with other regulators has also been important to the AER. We are strengthening our ties with regulators across Canada, in the United States, and beyond.

Last year, the AER signed a memorandum of understanding (MOU) with Mexico's energy regulator, the Comisión Nacional de Hidrocarburos, which formalizes an agreement to work collaboratively on regulatory best practices in the development of hydrocarbon resources.

We also implemented a service agreement with the Government of the Northwest Territories to provide technical expertise for onshore shale oil and gas

Targets

The 2014–17 strategic plan sets out specific targets and measures. Here is a look at where we are.

Percentage of Albertans confident that oil and gas development is occurring responsibly

Stakeholder rating of AER performance in key areas of concern

Recommendations for best-in-class performance

CREDIBLE

development, in addition to signing an MOU with the Netherlands-based research institute Deltares. This institute has expertise to support the AER in environmental protection and water management and an international reputation for expertise in understanding and managing groundwater and will help us fulfill our expanded mandate, which includes parts of Alberta's *Water Act*.

Such partnerships strengthen the regulatory system, which is good for the resource, the economy, the environment, and public safety.

Best-in-Class Project

Alberta's oil and gas activities attract international attention, which means that the province's regulator operates on the world stage. For this reason, it is important that the AER stands proudly in the spotlight to inform the world about our efforts to realize our vision of becoming a best-in-class regulator by being protective, effective, efficient, and credible.

But we know that we cannot simply declare ourselves best in class. We need to define what that means, find consensus on what makes a high-performing regulator, and know where we rank in meeting that goal. That's why we launched the Best-in-Class Project. Run by the University of Pennsylvania's Program on Regulation, the project has three main objectives:

- to identify the key attributes of a best-in-class regulator,

10 per cent increase in awareness of the AER and its role in regulating energy development in Alberta	41 per cent of Albertans are aware of the AER and its role in regulating oil and gas development, an increase of 9 per cent
10 per cent increase in positive perceptions/ rankings of AER performance	In 2015, 77 per cent of Albertans expressed confidence in the AER's ability to fulfill its mandate
Completion and release of recommendations in 2015	Recommendations for best-in-class performance will be delivered to the AER in summer 2015

- to understand how the AER can adopt these attributes, and
- to identify how to credibly measure the concept of best in class.

Considerable work has gone into the initiative this past year, including a stakeholder summit in Calgary and a First Nations dialogue session in Edmonton.

We eagerly anticipate the university's findings, which will be delivered in a final report to be published in the summer of 2015. From this, we can define what it means to be best in class, and that definition will then guide our path in the years ahead—one that our stakeholders helped to choose and confirm.

What's Next

In the year ahead, the AER will continue to build on work already under way to make us a credible regulator. Among other initiatives, we will significantly enhance the way we engage our many stakeholders and strengthen our national and international role as a leading energy regulator.

Multistakeholder Engagement Advisory Committee

Shortly after the AER was established in June 2013, we created the Stakeholder and Government Relations Division to enhance outreach to our various stakeholders and build stronger relationships. Now we are going even further by establishing a multistakeholder engagement advisory committee.

This committee is made up of representatives from AER stakeholder groups, who receive updates and information

Representatives from the multistakeholder engagement advisory committee have the opportunity to ask questions, identify issues, and communicate the values and interests of the group they represent.

CREDIBLE

about the AER's regulatory change and transformation initiatives at regularly scheduled meetings.

Stakeholder representatives also have the opportunity to ask questions, identify issues, and communicate the values and interests of the group they represent. More importantly, the representatives can help us understand these values and interests in the context of specific energy development projects, while identifying any risks they believe these projects would pose. The committee will provide the AER with meaningful feedback on how we engage Albertans on issues like tailings management, our new single application approach, and our Best-in-Class Project.

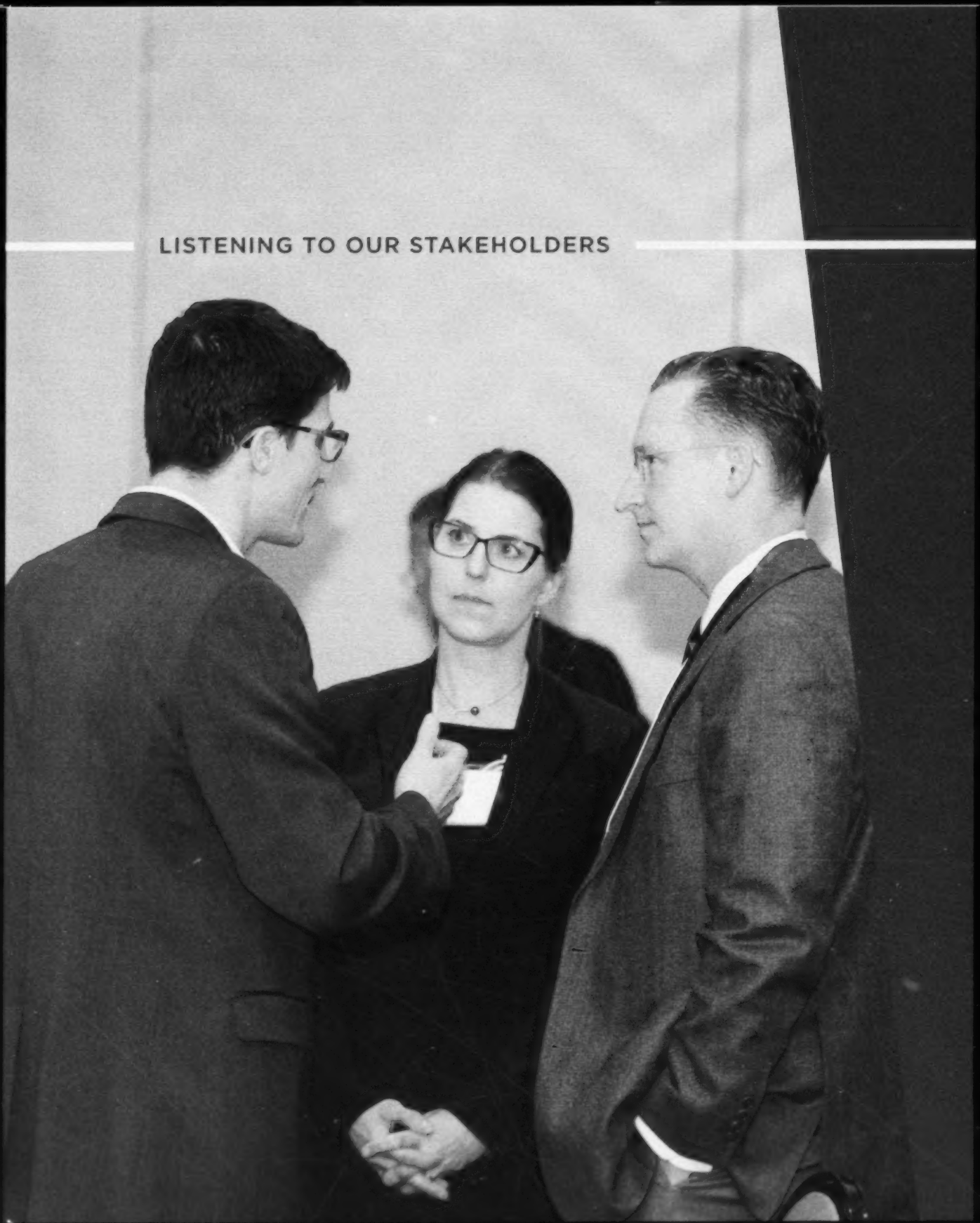
Regulatory Diplomacy

We have developed a national/international strategy, with one of the key elements being to advance the AER's credibility through "**regulatory diplomacy**."

Regulatory diplomacy lets the AER demonstrate national and international leadership on regulating energy resources. It enhances our reputation by building national and international relationships and allows us to take advantage of any opportunities that arise.

Through regulatory diplomacy, we will create strategic alliances with our national and international stakeholders and work to influence, inform, and elevate provincial, national, and international energy regulation practices.

LISTENING TO OUR STAKEHOLDERS



As the AER moves toward becoming a risk-based, full life-cycle regulator, it is important that we truly understand the values and interests of our stakeholders. To help ensure this happens, the AER has established a multistakeholder engagement advisory committee.

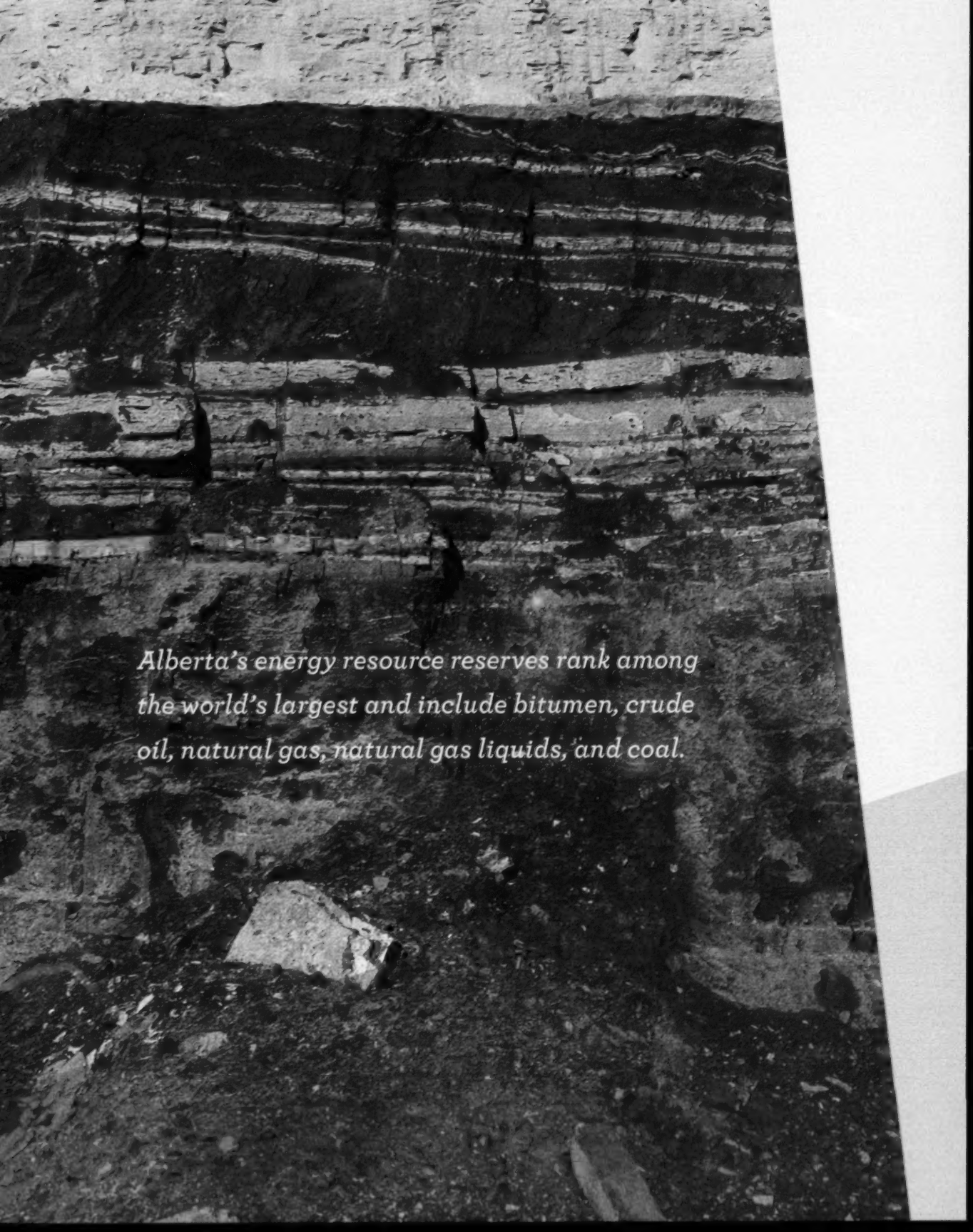
This committee is made up of representatives from key AER stakeholder groups and will meet eight to ten times a year. At these meetings, the stakeholder representatives receive updates and information about the AER's regulatory changes and transformation initiatives.

Stakeholder representatives have the opportunity to ask questions, bring issues forward, and communicate the values and interests of the groups they represent. What's more, the representatives help the AER understand these values and interests in the context of specific energy development projects, which includes identifying potential risks that they believe these projects pose.

The committee will also provide guidance on engaging stakeholders and seeking feedback on regulatory change and other initiatives. It is an advisory body rather than a steering committee; it has no mandate to make decisions or report on activities.

The committee is part of our goal to transform how the AER engages our stakeholders. We know that successfully engaging our stakeholders requires support and commitment from AER staff and active participation of our external stakeholders, particularly landowners and residents, aboriginal groups, environmental nongovernmental organizations, municipalities, and community-based multistakeholder groups.

The energy industry and the Government of Alberta will continue to be informed and engaged on regulatory issues but won't be formally represented on the advisory committee.



Alberta's energy resource reserves rank among the world's largest and include bitumen, crude oil, natural gas, natural gas liquids, and coal.

DELIVERING THE STRATEGIC PLAN

A World-Class Resource

Alberta's energy resource reserves are among the world's largest and include bitumen, crude oil, natural gas, natural gas liquids, and coal.

Topping this list is bitumen from the province's oil sands deposits, with remaining established reserves at 166 billion barrels in 2014, truly a world-class resource. To put things in perspective, less than 10 billion barrels of bitumen have been extracted since the late 1960s.

At 841 million barrels (or 2.3 million barrels per day), raw crude bitumen production accounted for 80 per cent of Alberta's total crude oil and bitumen production in 2014. Bitumen production in 2014 increased by 6 per cent for mining projects and by 14 per cent for in situ projects, resulting in an overall raw bitumen production increase of about 11 per cent over 2013.

Of the total bitumen production, 47.4 per cent was used as feedstock for upgraders, yielding 953 thousand barrels per day of upgraded production. Alberta refineries processed 311 thousand barrels per day of upgraded bitumen and 23 thousand barrels per day of nonupgraded bitumen.

In Alberta, crude oil production increased by about 1 per cent in 2014. Conventional natural gas reserves were 31 trillion cubic feet (Tcf) in 2014, while total production was 3.4 Tcf. Natural gas liquids (NGLs) production increased by 4 per cent in 2014.

In 2014, our coal reserves remained unchanged at 37 billion tons, while only 33 million tons were produced.

A study conducted by the regulator in 2012 estimated that the hydrocarbon resources from shale are estimated to be a very large and important potential energy supply for Alberta and the world. Best estimates put the in-place resource at 3424 Tcf of gas, 58.6 billion barrels of NGLs, and 423.6 billion barrels of crude oil.

Alberta's energy resources significantly contribute to both Alberta's and Canada's economies. The value of our energy resource production reached a record high in 2014, exceeding $110 billion. Amid the current low crude oil and natural gas price environment, the contribution of energy resources to Alberta's economy is expected to be lower in 2015. However, the AER forecasts that after 2015, the value of energy commodities will return to higher levels with the return of stronger oil and natural gas prices.

Drivers for Change

The energy development landscape in Alberta, as elsewhere, is changing rapidly, driven by advances in technology, especially the drilling of horizontal wells that are brought into production by multistage hydraulic fracturing. This means companies can now tap resources trapped in **organic-rich shales** and **tight rock** previously considered inaccessible.

The impacts of this change are significant:

- It alters historical geographic supply-and-demand patterns.
- It increases resource development opportunities.
- It drives competition for investment dollars.
- It creates new environmental risks.

The AER understands that these challenges require a regulatory approach that ensures the resources are developed

- safely, to protect the public;
- responsibly, to protect the environment; and
- efficiently, to manage the costs of regulation.

We also want to do this in a transparent manner to ensure information is clear and timely and that the AER is accountable.

The economic landscape has changed, and the AER must regulate within the reality of low oil prices and decreased production. We are committed to enhancing our processes, finding efficiencies, and ensuring we continue to pursue the transformation of the regulatory system.

POTENTIAL ENERGY SUPPLY

3424 Tcf
in-place natural gas

58.6 Billion BBLS
in-place natural gas liquids

423.6 Billion BBLS
in-place crude oil

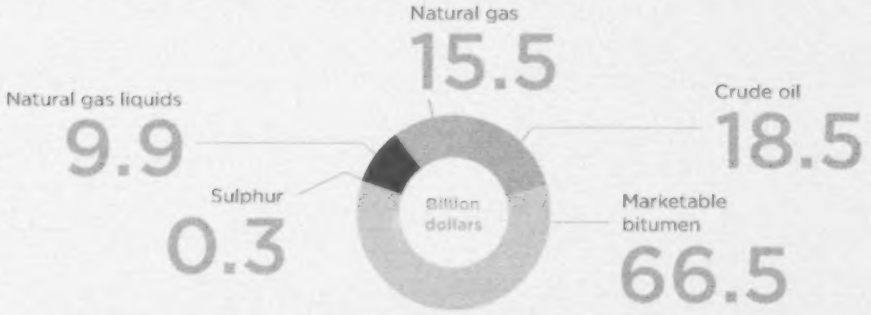
As part of the Government of Alberta's Integrated Resource Management System, the AER must be equipped to manage cumulative impacts. This is even more important as oil and gas development evolves from small-scale, well-by-well projects to large-scale projects that require more infrastructure and leave larger footprints.

The AER must consider the cumulative effect of these developments along with other industrial or recreational uses of the landscape. As pressure on the land continues to increase, we must ensure that regulations align with land-use policies and related energy and environmental policies as a single integrated system.

In June 2014, the AER's mandate expanded to include additional environmental responsibilities. This gave us the opportunity to examine our existing environmental functions and consider environmental performance improvement opportunities to better serve stakeholders.

Last September, we hired a chief environmental scientist, Dr. Monique Dubé, to help fulfill our new mandate and commitment to improving environmental performance. Through Dr. Dubé, the AER developed a more comprehensive environmental vision and began work under a three-year work plan that sets the direction, activities, and priorities for environmental protection across the organization.

VALUE OF ENERGY COMMODITIES PRODUCED IN 2014



Meanwhile, public opinion research conducted in 2015 indicated that positive awareness of the AER has increased by 9 per cent and that Albertans are expressing confidence in the AER's ability to deliver on its mandate. That said, Albertans expect the AER to focus on public safety, enforcing our rules, responding to incidents, and protecting the environment.

The AER also recognizes that our stakeholders play a large role in the regulatory process and want to be assured that the regulatory system meets their expectations of public safety, environmental protection, thorough assessment of risks, and transparent and open communications.

Refining Our Strategic Plan

The AER is expected to protect what matters most—public safety and the environment—while protecting economic benefits for all Albertans.

This is important work. But to truly reach our vision, we must have a clear strategy, focus on strategic priorities, and determine how we will responsibly manage our budget and staff to deliver results for the AER and our stakeholders.

When we launched the plan in 2014, we knew that our road map must help us identify our key priorities and establish clear performance measures to ensure that we stay on track and demonstrate our results. We also knew that we would

amend this road map along the way to respond to new challenges and risks and to take advantages of new opportunities to transform our organization.

In 2015, we have amended our plan to include the **new activity life-cycle approach (NALA)**, our new approach to development that involves a single application, single review, and single decision, which is an innovative project that marks an important step in our transformation. This approach will eventually result in faster application review times, provide more information on proposed energy development to our stakeholders, and allow us to focus more on compliance through all stages of development.

We've also included a stronger focus on our people; investing in the training, development, recruitment, and retention of our staff will help ensure success in meeting our targets by making certain we have highly skilled and talented employees at every level of our operations.

At the same time, we'll continue to respond to valuable recommendations from the Auditor General of Alberta on how to improve our pipeline safety performance and ensure that Alberta's dams related to energy resource development are immediately assessed as part of our dam safety inspection program.

The AER strategic plan includes our strategic priorities, strategic outcomes, themes (i.e., areas of focus), and performance measures and targets against which we will monitor our progress....

The AER strategic plan includes our strategic priorities, strategic outcomes, themes (i.e., areas of focus), and performance measures and targets against which we will monitor our progress and that others will use to measure our success.

We will continue to refine and amend the plan to respond to new challenges and opportunities.

2014–17 STRATEGIC PLAN

Strategic priorities	Strategic outcomes	Themes
PROTECTIVE **Develop an integrated whole-system regulatory approach**	Effective management of public safety, and cumulative environmental risks and impacts	Play-based regulation (land and water) Tailings management Air emissions Integrated Resource Management System
EFFECTIVE **Strengthen risk-based regulation**	Effective management of resource conservation and minimize financial liability on Albertans	Aging infrastructure and liability management Reservoir containment Pipeline safety
EFFICIENT **Transform Alberta's energy regulatory system to improve efficiency**	The regulatory system is efficient, minimizing duplication, with highly efficient processes, and only intervening to the level necessary	Operations continuous improvement Regulatory reform New Activity Life-cycle Approach (NALA)
CREDIBLE **Increase trust and confidence in how energy is developed in Alberta**	Stakeholders are confident about how energy is developed in Alberta	Open, transparent communication Stakeholder engagement Best-in-class review Human capital

Performance measures	Performance targets
Volume of all water (fresh, saline, and recycled) used for oil, oil sands, and gas operations	Work with GoA to set benchmarks and requirements for reduction of water use for energy resource development
	Reduce overall tailings
Volume of gas flared and vented from oil and gas operations	Flaring levels are within provincial guidelines
TBD	TBD
Proportion of inactive wells that meet current suspension requirements	100 per cent of high-risk inactive wells meet AER suspension requirements
Adoption of risk-based regulation to respond to changes in technology and complexity in oil sands development	No unintended loss of reservoir containment
Number of incidents per kilometre of pipelines regulated by the AER	Pipeline incident rate reduced by 4 per cent
Regulatory process efficiencies	$400 million in cost savings from efficiency initiatives in 2015
Relevant regulatory requirements	Complete a full regulatory review to identify and execute opportunities for consolidation and simplification
Improve efficiency of AER application decisions	Establish final NALA blueprint to be approved by June 30, 2015
Percentage of Albertans confident that oil and gas development is occurring responsibly	10 per cent increase in awareness of the AER and its role in regulating energy development in Alberta
Stakeholder rating of AER performance in key areas of concern	10 per cent increase in positive perceptions/rankings of AER performance
Recommendations for best-in-class performance are developed through stakeholder collaboration	Completion and release of recommendations in 2015
Highly skilled and engaged employees	Establish a baseline in 2015, with an increase in the rating in 2016

Vision

The AER is recognized as best in class, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans.

» *The Year Ahead*

The AER is committed to delivering on our strategic plan and becoming a best-in-class regulator, all while delivering excellence in our day-to-day regulatory work.

But claiming that we have delivered on our commitments means little unless Albertans have the chance to assess our work—which means that we must measure our performance, refine our targets, and report on our progress in being a regulator that is protective, effective, efficient, and credible.

As we measure our performance, we must assess the efficiency of our processes and the effectiveness of our regulatory requirements. We will also measure the performance of both industry as a whole and each individual company.

As we move into the second year of our strategic plan, we're working to improve our targets and measures and demonstrate that the AER is transparent, accountable, and driven by results.

In the coming months, we will provide regular reports on our progress in meeting our targets and establish new targets as we meet the previous ones. We will provide evidence where we have been successful and explain where we have failed. We will use internal performance indicators throughout the organization to give us early signs of our progress or indicate that we should change course if necessary.

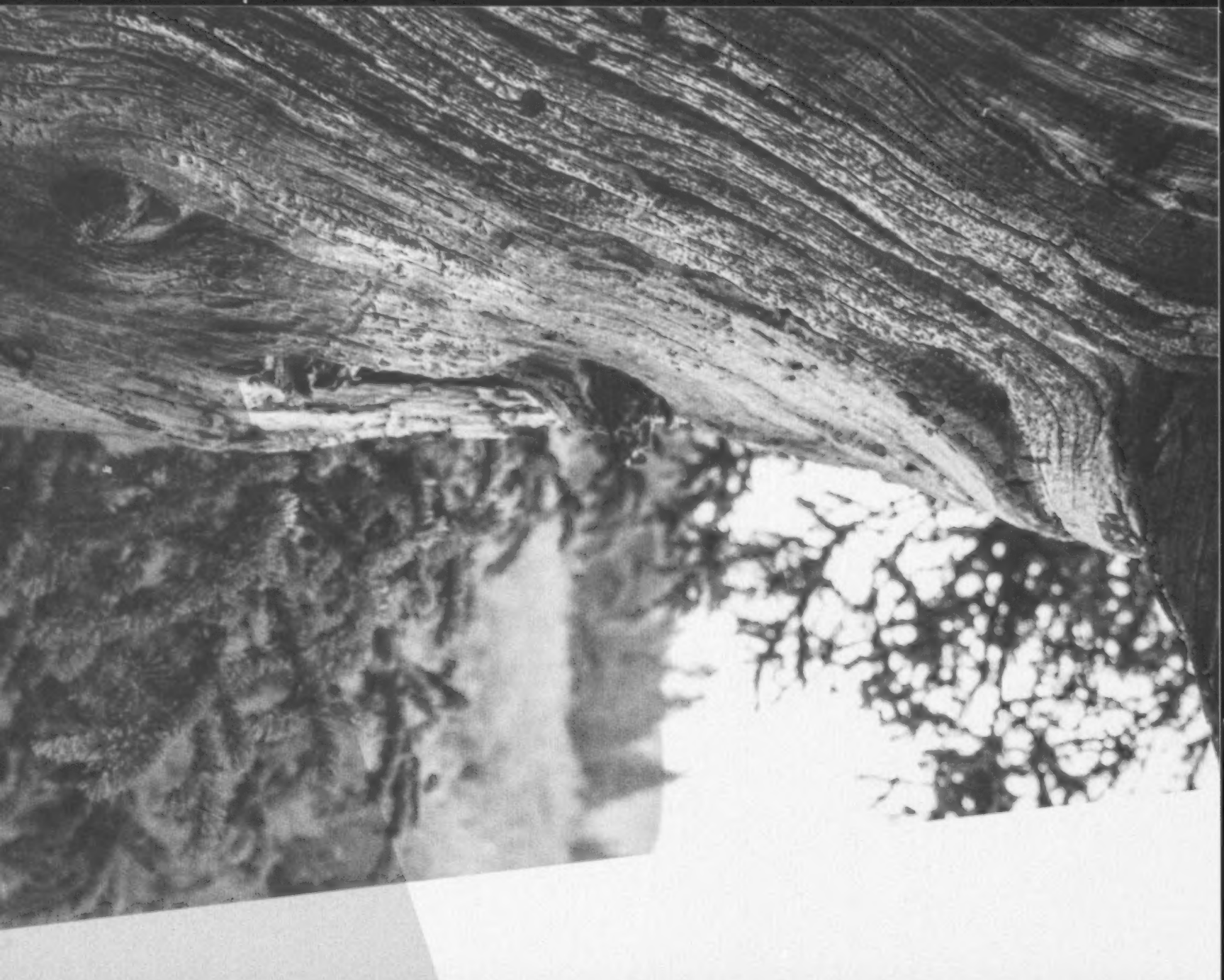
For the strategic plan to succeed, we need to deliver on the key projects under our strategic priorities as well as critical day-to-day functions that support all of the AER's work. Information technology, human resources, change-management initiatives, leadership development, media and public awareness programs, strong financial management, and a framework for continuous improvement all play a role in achieving success.

The AER's employees are responsible for the success we've had to date, and their commitment will be key to ensuring that we achieve our vision.

Whether they are introducing new requirements to protect public safety, finding more efficient ways of doing business, building relationships with stakeholders at home and abroad, responding to concerns in communities across Alberta, or providing the corporate services we need to operate, AER employees are at the heart of our work and are the driving force behind Alberta's regulator.

The AER works every day to fulfill our mandate to provide for the safe, efficient, orderly, and environmentally responsible development of Alberta's energy resources. Working together, we will oversee our world-class resources for the benefit of all Albertans.

The AER is committed to delivering on our strategic plan and becoming a best-in-class regulator, all while delivering excellence in our day-to-day regulatory work.



OPERATIONAL OVERVIEW

Operations Division

The Operations Division is divided into sector and function branches:

- Industry Operations focuses on the resource itself, on working with industry, and on achieving Government of Alberta policy outcomes. Industry Operations includes four sectors:
  - Oil and Gas (conventional, unconventional, geothermal, and other infrastructure)
  - In Situ
  - Mining (oil sands and coal)
  - Pipelines (all pipelines)
- The vice president of Industry Operations leads teams that are responsible for setting day-to-day priorities that align with the strategic plans and priorities of the AER.
  - Function branches focus on the mechanics: how things get done. This is where our technical and process experts reside; they work with their colleagues in the sector branches to ensure that we are applying efficient, standard processes to the various sectors we regulate. Function branches include the Authorizations Branch, Environment and Operational Performance Branch, and Closure and Liability Branch.
- Vice presidents of function branches are accountable for defining how the work gets done, for balancing consistency and effectiveness, and for responding to the unique needs of the sector teams:
  - The Authorizations Branch delivers project approvals and permits that focus on the start of new resource developments.
  - The Environment and Operational Performance Branch monitors ongoing operations, including operating approvals, inspections, compliance, and emergency preparedness.
  - The Closure and Liability Branch oversees the end-of-life aspects of energy developments.

Strategy and Regulatory Division

The Strategy and Regulatory Division identifies and manages issues, risks, and opportunities while managing the regulatory development process. This separation between the day-to-day operational work and the regulatory development means each gets the focus and attention it needs.

The Strategy and Regulatory Division comprises four branches that help to deliver expertise to the whole organization:

- Corporate Planning and Enterprise Projects Branch facilitates the process of corporate planning and prioritization, ensuring that regulatory initiatives and projects are aligned with our mandate and vision.
- Regulatory Operations and Economics Branch ensures we deliver consistent, predictable, and transparent regulatory change. This branch implements practical operating procedures for regulatory development and reports on energy statistics, including forecasting and cumulative land impacts data.
- Science and Evaluation Branch produces and reports on current and reliable indicators in energy resource, environmental, and social outcomes related to energy development at the reservoir to play-based scales.
- The Alberta Geological Survey is a branch that provides the AER with scientific peer-reviewed research, mapping, and reporting on Alberta's geology, earth resources, geological hazards, and groundwater at the regional scale.

Stakeholder and Government Relations Division

Landowners, First Nations and Métis, oil and gas companies and industry associations, and nongovernmental organizations and environmental nongovernmental organizations, municipalities, not to mention our Government of Alberta partners, all have a stake in our work. Each stakeholder has a unique perspective and interests, which is why the AER created a group dedicated to engagement and relationship building—the Stakeholder and Government Relations Division (SGR).

Building strong relationships between the AER and its stakeholders and partners has many strategic advantages but is also an objective in its own right. Stronger relationships result in more transparent, cooperative, and productive conversations. These build a foundation of trust that enables the relationships to withstand future issues that might arise.

Effective engagement improves regulatory decision-making and creates a better regulator, which benefits all Albertans and our working partners.

To regulate the world's third-largest energy resource effectively, credibly, and protectively, we are committed to learning from and sharing best practices and knowledge with our peers across Canada, in the United States, and around the globe. There is also a great deal that the AER can learn from Alberta-based stakeholders who have a vested interest in the responsible development of our oil and gas resources.

SGR builds these mutually beneficial relationships through four branches:

- Alberta Government Relations works with AER staff and our Government of Alberta partners to ensure that policy development and regulatory delivery for development of Alberta's energy resources are integrated and aligned with each other.
- Alberta Stakeholder Engagement engages our Alberta stakeholders to understand how they are affected by, or concerned about, energy development in Alberta. This engagement informs how the AER responds to issues and concerns, achieves desired outcomes, and builds confidence through an accessible, reliable, and consistent regulatory process.

- National and International Stakeholder and Government Relations ensures that the AER remains informed and engaged about what is happening in other jurisdictions and advances the AER's credibility through regulatory diplomacy and by increasing stakeholder trust and confidence in how energy is developed in Alberta.
- The Public Affairs Branch works to build credibility by communicating how the AER is protective, effective, and efficient. Public Affairs is responsible for making sure that the AER's communications, both internal and external, are clear, helpful, and timely. Public Affairs provides many services to the organization, including media relations and crisis communications, strategic planning and advice, internal and corporate communications, editing, graphic design, digital media services, and web services.

Together, these branches focus on all AER stakeholders and government partners to ensure that the AER fulfills its commitment and promise to Albertans.

Corporate Services Division

This division focuses on people, infrastructure, and information and is designed to support the organization with key corporate functions such as technology, data, workplace services, finance, administration, and human resources.

The Corporate Services Division supports the organization with essential knowledge, advice, and services related to their areas of expertise. Services are provided from Calgary and, where it makes sense, in field offices to ensure that all AER employees have access to the vital corporate services required to do their jobs.

The division is committed to providing the AER with the tools needed to conduct our business and make the AER a great place to work. Branches under the Corporate

Services Division include the following:

- Administrative/Workplace Services
- Finance
- Human Resources
- Information Management
- Information Services
- Internal Audit

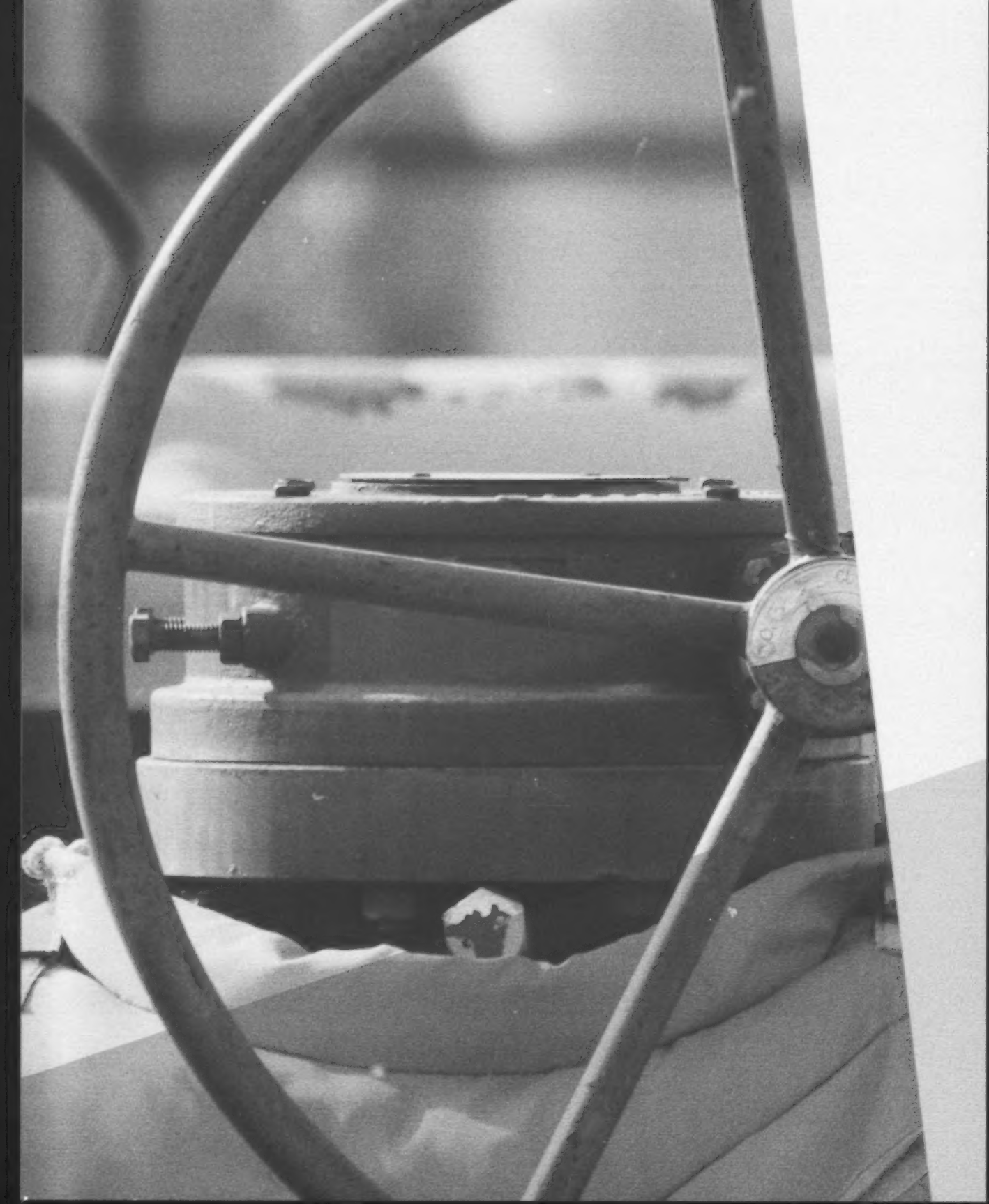
Law Branch

The Law Branch provides services by assigning AER lawyers to projects, teams, applications, regulatory initiatives, proceedings, etc. on an as-needed basis. This approach will continue. The Law Branch also continues to take steps to increase its expertise in the specified enactments. In addition, this branch drafts all legislative, rule, and regulation content for the numerous statutes we administer and drafts and reviews contracts. It also addresses all issues around litigation and appeals.

Our lawyers understand and have expertise in the statutes the AER administers—including all rules and regulations—as they relate to energy development, which include

- the *Responsible Energy Development Act*,
- the *Oil and Gas Conservation Act*,
- the *Pipeline Act*,
- the *Oil Sands Conservation Act*,
- the *Coal Conservation Act*,
- the *Water Act*,
- the *Environmental Protection and Enhancement Act*,
- the *Public Lands Act*, and
- parts of the *Mines and Minerals Act*.

One change is in how we manage the AER's responsibilities as a public body under the *Freedom of Information and Protection of Privacy Act* (*FOIPPA*). Formerly, the *FOIPPA* team reported directly to the AER general counsel. Recognizing that responses to access requests under *FOIPPA* are only one of several means by which the AER manages and disseminates information, this function has now been moved to the Information Management Branch of Corporate Services and now reports indirectly to the Law Branch.



CORPORATE GOVERNANCE

How an organization is governed determines how it carries out its daily business and how successful it is at achieving its goals. For this reason, corporate governance was a key consideration when the AER was created in June 2013.

The AER's governance structure separates the corporate, operational, and governance responsibilities from adjudicative functions (hearings on energy applications). Through this model, the AER seeks to realize its full potential as the single regulator of Alberta's energy resource development, as well as gain the confidence of its many stakeholders.

Board of Directors

A chair heads the AER and leads a board of directors; none are involved in the AER's day-to-day operations or decisions. Rather, these directors set the general direction of the regulator's business affairs, including approval of the strategy and budget. The directors are also charged with approving regulatory change and setting performance expectations for the AER and its president and chief executive officer. In this way, the AER's board operates as a truly "corporate-style" board.

President and Chief Executive Officer

The president and chief executive officer, who reports directly to the chair, is accountable for day-to-day operations, which include receiving and making decisions on applications, monitoring and investigating energy resource activities for compliance, and overseeing reclamation and remediation of energy developments at the end of their life cycle.

Hearing Commissioners

Hearing commissioners are responsible for conducting all hearings into energy applications and regulatory appeals. Reporting to a chief hearing commissioner, they are independent adjudicators and operate free of political interference; their decisions may only be reviewed by the Court of Appeal of Alberta.

» Board of Directors

Board Highlights 2014/15

During the nine meetings the AER's board of directors held over the 2014/15 fiscal year, the board approved changes to the 2014–17 strategic plan (see page 70) and monitored the AER's progress on delivering on the plan's four key priorities.

The board developed and implemented tools that will help ensure strong leadership and governance, such as a board evaluation process, a chief executive officer and executive management performance and assessment process, and a chief executive officer succession plan.

Additionally, the board continued to carry out the important work of its four committees:

- The Audit and Finance Committee reviewed the formulas that would determine the administration fees charged to industry. The committee also met with the Auditor General of Alberta for its standing annual audit meeting.
- The Human Resources, Health, and Safety Committee integrated new employees to the AER, reviewed the leadership development initiative with the University of Alberta, and developed health and safety measurement tools.
- The Governance Committee conducted the annual review of the terms of reference of board committees and the AER bylaws.
- Meanwhile, the Regulatory Review Committee reviewed changes to a number of regulatory documents, including the *Pipeline Rules*, the *Oil and Gas Conservation Rules*, and *Directive 058: Oilfield Waste Management Requirements for the Upstream Petroleum Industry*, in addition to the 2015 orphan fund levy.

Board Committees

Committees are an important part of any board. In general, their role is to receive the reports and recommendations of management, provide information, make recommendations to the board for approval, and make decisions on behalf of the board in their areas of authority.

Regulatory Review Committee

This committee helps ensure that proposed AER regulatory instruments support and contribute to the AER's mandate and vision, are applied enterprise-wide, are consistent with the current

Director Board Meetings Attended

(June 2014 to March 2015)

Gerard Protti, Chair	9 of 9
Cameron Bailey	8 of 9
David Chalack	9 of 9
Elizabeth Dowdeswell	3 of 9*
Cassie Doyle	1 of 9**
Fred Estlin	9 of 9
Peter Flynn	8 of 9
Andy Neigel	9 of 9
Sheila O'Brien	8 of 9

* Resigned, June 26.

** New to board effective February 2015.

Cassie Doyle

Andy Neigel, RPF, B.Sc.Forestry

Fred Estlin, B.Admin., F.C.A
Audit and Finance Committee Chair

Dr. David Chalack, D.V.M. ICD.D

Sheila O'Brien, C.M., B.A.
Human Resources Health and Safety Committee Chair

Gerard Protti, M.A., ICD.D
Chair, Nomination Committee Chair

Peter C. Flynn, Ph.D., P.Eng.
Governance Committee Chair

Cameron Bailey
Risk Management Committee Chair

regulatory and economic environment, and receive adequate feedback from AER staff and stakeholders. It also makes certain that these instruments are based on sound science, technical expertise, and engineering and economic principles, and that they can be supported legally. In addition, the committee helps determine applicable approvals required for regulatory instruments, such as approval from the board of directors, the Government of Alberta, or both.

Human Resources, Health, and Safety Committee

This committee monitors, oversees, and makes recommendations to the board on the AER's human resources management. It also advises on strategy and planning, compensation philosophy, workforce engagement, staff selection, remuneration, and performance assessment of the chief executive officer, and compensation and succession planning for senior executives. This committee also oversees the AER's occupational health and safety policies, practices, and performance to ensure that standards are maintained.

Governance Committee

The AER's Governance Committee establishes processes to clarify how the AER makes decisions. It helps the board of directors address governance matters affecting operations and on specific matters from the board of directors, the chair, or executive management.

Audit and Finance Committee

The Audit and Finance Committee helps and advises the board of directors with accounting, financial reporting, risk management, and auditing. Fulfilling an oversight role, this committee monitors, oversees, and makes recommendations to the board on

- financial statements and other financial information,
- the adequacy and effectiveness of the AER's systems of internal controls,
- risk management,
- audit functions, and
- monitoring the development of the AER risk-management system.

Risk Management Committee

The Risk Management Committee was established in May 2015 to assist the board of directors fulfill its responsibilities of overseeing risk management at the AER. This includes looking at internal controls relating to enterprise risk management and to helping the AER's leadership team and the board of directors make informed, strategic decisions.

Nomination Committee

Also new in 2015, the Nomination Committee was formed to lead the process of identifying and selecting candidates for appointment, or reappointment, to the board of directors. The committee also makes recommendations to the board of directors for director succession plans.

» *Executive Leadership Team*

The AER president and CEO reports directly to the chair of the AER board of directors and is accountable for day-to-day operations, which include receiving and making decisions on applications, monitoring and investigating energy resource activities for compliance, and closure of energy developments, including remediation and reclamation.

Standing

Rick Brown
Executive Vice President
Corporate Services

Jim Ellis
President and Chief
Executive Officer

Martin Krezalek
Chief of Staff, Office of the
President and CEO

Cal Hill
Executive Vice President
Strategy and Regulatory

Sitting

Jennifer Steber
Executive Vice President
Stakeholder and
Government Relations

Patricia Johnston
General Counsel
Executive Vice President Law

Kirk Bailey
Executive Vice President
Operations

Tristan Goodman
Vice President
Corporate Planning and
Enterprise Projects

» *Hearing Commissioners*

Hearing commissioners represent a key part of the AER's mandate by having responsibility for its adjudicative functions. They are appointed by the Government of Alberta through an Order in Council for specified terms and include both full-time and part-time hearing commissioners, all of whom report to a chief hearing commissioner, who in turn reports to the AER's chair.

The hearing commissioners conduct hearings and inquiries, acting as decision-makers on major energy applications and regulatory appeals. They are also involved in developing the organization's hearing procedures and rules. Hearing commissioners may also conduct alternate dispute resolution (ADR) once it is determined that an application or a regulatory appeal will go to a hearing.

Hearing commissioners are independent adjudicators, operating free of political interference. Only the Court of Appeal of Alberta may review and overturn their decisions. They also function independently from the AER's operations staff.

Hearing Commissioner Activities

Over the past 12 months to the end of March 2015, 18 files were referred to the chief hearing commissioner. Twelve files were assigned to hearing commissioners to conduct ADR; eight were completed and four are in progress. Of those completed, three files were resolved through mediation, one application was withdrawn, three files were resolved after ADR was initiated, and one file went to a hearing.

Hearing commissioners conducted four hearings: two oral hearings—including the Grand Rapids pipeline hearing in June and July 2015—and two written hearings. Six scheduled hearings were cancelled as the reasons for holding a hearing were resolved. The AER issued 10 decision reports for hearings held and cancelled hearings during this period.

Heather Kennedy, B.Sc.
Part-Time Hearing Commissioner

Alex Bolton, B.Sc., MMSc., P.Geo.
Chief Hearing Commissioner

John Lawson, MPA
Part-Time Hearing Commissioner

Cecilia Low, B.Sc., LL.B., LL.M.
Full-Time Hearing Commissioner

Brad McManus, Q.C.
Full-Time Hearing Commissioner

Christine Macken, B.A.
Full-Time Hearing Commissioner

Rob McManus, B.A., M.E.Des.
Full-Time Hearing Commissioner

Lorne Ternes, LL.B
Part-Time Hearing Commissioner

Terry Engen
Part-Time Hearing Commissioner

Barbara McNeil, B.Sc., C.M.
Full-Time Hearing Commissioner

Not pictured
Jurgen Preugscha
Part-Time Hearing Commissioner

MANAGEMENT'S DISCUSSION AND ANALYSIS

This management's discussion and analysis (MD&A) should be read in conjunction with the audited financial statements of the Alberta Energy Regulator (AER) for the years ended March 31, 2015 and 2014, and accompanying notes. The AER's financial statements and the financial data in this MD&A have been prepared in accordance with Canadian public sector accounting standards (PSAS).

All comparisons are between the years ended March 31, 2015 and 2014, unless otherwise noted. The 2014 figures combine 77 days of the Energy Resources Conservation Board (ERCB) operations from April 1, 2013 to June 16, 2013 with the balance of the fiscal year being those of the AER. All amounts are expressed in thousands of Canadian dollars, unless otherwise noted.

About the AER

On June 17, 2013, the Government of Alberta proclaimed certain sections of the *Responsible Energy Development Act* (*REDA*), launching the AER. Regulatory functions were transferred from Alberta Environment and Sustainable Resource Development (ESRD) to the AER in phases between June 17, 2013, and March 31, 2014. This included taking on new responsibility for public lands under the *Public Lands Act* and geophysical activities under the *Mines and Minerals Act*, as well as authority for the *Environmental Protection and Enhancement Act* and the *Water Act* as they relate to energy development.

The AER is the single provincial regulator for oil, gas, oil sands, and coal development in Alberta. The AER ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water, managing public lands, and protecting the environment, while providing economic benefits for all Albertans.

Summary Annual Highlights

The AER recovers its operating and capital asset costs through two separate revenue sources. The two sources of revenues are industry levies and assessments and other revenue. Provincial grants were received in fiscal 2014 and 2015 for costs associated with the implementation of the AER, which was a Government of Alberta initiative.

Years Ended March 31	**2015**	2014	Change	% Change
Industry levies and assessments	**$ 258 278**	$ 181 668	$ 76 610	42
Provincial grant	**19 800**	36 300	(16 500)	(45)
Other revenue	**9 914**	8 454	1 460	17
Total revenue	**287 992**	226 422	61 570	27
Energy regulation	**256 827**	208 310	48 517	23
Orphan abandonment	**15 760**	16 172	(412)	(3)
Total expenses	**272 587**	224 482	48 105	21
Capital Investment	**20 854**	13 870	6 984	50

Total Revenues

Industry Levies and Assessments

Administration Levy

REDA authorizes the AER to levy an administration fee on the sectors that it regulates. Funds from industry levies and assessments are used to support the AER's operations and fulfill the AER's mandate to ensure the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle.

The AER's revenue requirements directly affect operator levy invoices. Other factors also contribute to the fee determination at an operator level, including an increase or decrease in wells or entities within the sector, ownership transfer and amalgamations, new entrants, and volume fluctuations. Invoices vary according to individual operations, are based on operating statistics for the previous calendar year, and are levied to operators according to which sector they operate within.

Years Ended March 31	2015	2014	Change	% Change
Oil and gas	$ 176 475	$ 119 380	$ 57 095	48
Oil sands	63 062	42 368	20 694	49
Coal	3 630	2 650	980	37
Other	111	2 028	(1 917)	(95)
Total	**$ 243 278**	$ 166 426	$ 76 852	46

The administration levy for the year ended March 31, 2015, increased by $76 852, or 46 per cent. An increase in the levy was required to fund the increased responsibilities of the AER. The Total Expenses and Tangible Capital Assets sections of this MD&A contain further discussion on the increased expenditures of the AER.

Orphan Well Levy

Years Ended March 31	2015	2014	Change	% Change
Orphan well levy	$ 15 000	$ 15 000	$ -	-
Penalties	-	242	(242)	(100)
Total revenue	**$ 15 000**	$ 15 242	$ (242)	(2)

Under part 11 of the *Oil and Gas Conservation Act*, the AER, by regulation, prescribes an orphan fund levy which is approved by the Government of Alberta. This levy is based on the revenue requirements identified by the Alberta Orphan Well Association (OWA). All levies collected are paid directly to the OWA and are not used to recover the AER's costs.

Provincial Grant

Years Ended March 31	2015	2014	Change	% Change
Provincial grant	**$ 19 800**	$ 36 300	$ (16 500)	(45)

Provincial grant revenue was $19 800 in fiscal year 2015, a decrease of $16 500, or 45 per cent. The $36 300 provincial grant received in fiscal year 2014 included funds for transition and set up costs of the AER. The 2015 grant related to the final costs of implementing the AER and supported its expanded responsibilities. The provincial grant decreased because transitional costs that were incurred before the proclamation of *REDA* were not required in fiscal 2015.

Other Revenue

Years Ended March 31	**2015**	2014	Change	% Change
Other revenue	**$ 9 914**	$ 8 454	$ 1 460	17

Other revenue consists of investment income, first-time well licence fees, data subscriptions, recoverable abandonment, and enforcement revenue and sales of electronic data and publications.

Total Expenses

i) Energy Regulation

Years Ended March 31	**2015**	2014	Change	% Change
Personnel	**$ 178 510**	$ 136 564	$ 41 946	31
Consulting services	**19 990**	21 962	(1 972)	(9)
Buildings	**18 016**	14 660	3 356	23
Computer services	**15 912**	12 710	3 202	25
Amortization of tangible capital assets	**11 836**	12 045	(209)	(2)
Other expenses*	**12 563**	10 369	2 194	21
Total Energy Regulation Expense	**$ 256 827**	$ 208 310	$ 48 517	23

* Consists of travel and transportation, administrative, equipment rent and maintenance, abandonment and enforcement costs, and loss on disposal and write-down of tangible capital assets.

Total expenses of the AER reflect the AER's use of its sources of revenue to fund expenditures and capital investment each fiscal year. Details of significant annual expenditures are included below.

Personnel

In fiscal 2015, personnel costs were $178 510, which is $41 946, or 31 per cent, higher than in fiscal 2014 because of the AER's increased employee base. To be a protective, effective, efficient, and credible regulator, the AER must retain and attract qualified individuals with appropriate skill sets. In fiscal 2015, the AER accepted a number of key new responsibilities and initiatives that necessitated more employees. Specifically, the AER:

- increased regulatory responsibility due to functions transferred from ESRD to the AER
  - The AER accepted regulatory responsibility for all energy resource activities under the *Public Lands Act* and Part 8 of the *Mines and Mineral Act*. ESRD was previously responsible for these activities. The AER's responsibility for regulatory oversight of these items began in November 2013.
  - The AER accepted regulatory responsibility for all energy resource activities included in the *Environmental Protection and Enhancement Act* and the *Water Act*. ESRD was previously responsible for these activities. The AER's responsibility for regulatory oversight of these items began in March 2014.
- created and expanded the following functions to help the AER become more protective, effective, efficient, and credible:
  - The AER created the Transformation Management Office to oversee and develop strategy for the AER's transition to a best-in-class regulator.
  - The AER created the Enterprise Project Management Office to establish a consistent, efficient, and effective project methodology at the AER.
  - The AER enhanced the Stakeholder and Government Relations function.

Consulting Services

The AER hires outside consultants to provide strategic technical advice and certain operational services. The costs of consulting services in fiscal 2015 were $19 990, a decrease of $1 972, or 9 per cent, from fiscal 2014. In fiscal 2014, most consultants were hired to help ensure the efficient transition of regulatory functions from ESRD and the ERCB to the AER. Fiscal 2015 consultants were hired to set up functions that will increase the AER's efficiency and effectiveness; fewer projects in fiscal 2015 required consultants, and consultation expenses were consequently lower.

Buildings

The AER leases several offices throughout the province. In fiscal 2015, building costs increased by $3 356, or 23 per cent. The AER's head office lease in Calgary is the most significant building cost, and the increase in costs relates mainly to increased rental rates at the head office and to more leased office space at the AER's Edmonton offices.

Computer Services

Computer services costs relate to maintenance and server-hosting costs of the AER. Costs totalled $15 912, which was $3 202, or 25 per cent, higher in fiscal 2015 than in fiscal 2014. The increase in costs is due to an increase in data centre and server expenses caused by an expanded employee base and increased responsibilities of the AER.

Amortization of Tangible Capital Assets

Capital assets are amortized over their estimated useful lives in accordance with PSAS. In fiscal 2015, amortization of tangible capital assets was consistent with 2014. The majority of the AER's additions to capital assets occurred late in fiscal 2015; therefore, there was no significant effect on amortization expense.

ii) Orphan Abandonment

Years Ended March 31	**2015**	2014	Change	% Change
Orphan abandonment	**$ 15 760**	$ 16 172	$ (412)	(3)

Orphan abandonment expenses remained relatively consistent because the OWA did not change its revenue requirements.

Tangible Capital Assets

Tangible capital assets totalled $63 211 in fiscal 2015 compared to $54 972 in fiscal 2014. In fiscal 2015, the AER's investment in tangible capital assets was $20 854. The formation of the AER necessitated expanding and restructuring existing and new leased office spaces. The AER's development and investment in information technology infrastructure and systems is a key component of its operations. Costs to maintain and update the AER's information technology environment in fiscal 2015 were $9 906, and funded system enhancements and equipment and

software purchases necessary due to the expanded mandate. In fiscal 2014, the AER invested $13 870 in tangible capital assets, which included the creation or expansion of office space and required upgrades of information technology infrastructure.

Security Deposits

Years Ended March 31	2015 Cash Security	2014 Cash Security	2015 Letters of Credit	2014 Letters of Credit
LLR	**$ 92 635**	$ 70 832	$ 153 521	$ 203 338
Mine Financial Security Program	**24 020**	23 087	1 548 938	1 387 849
Other	**6 180**	6 292	4 782	4 513
	$ 122 835	$ 100 211	$ 1 707 241	$ 1 595 700

The AER collects financial security under a number of different programs to protect the public from paying significant costs associated with abandoning and decommissioning energy development sites.

- The Licensee Liability Rating (LLR) program is designed to
  - prevent the costs of suspending, abandoning, remediating, and reclaiming a well, facility, or pipeline in the LLR program from being borne by the public of Alberta should a licensee become defunct and
  - minimize the risk to the orphan fund posed by the unfunded liability of licensees in the program.

  Effective May 1, 2013, the AER made changes to the LLR program to address concerns that the previous LLR program significantly underestimated abandonment and reclamation liabilities of licensees; the changes were made with the support of the Canadian Association of Petroleum Producers and the Explorers and Producers Association of Canada. These changes increased the amount of security that licensees who participate in the LLR program must deposit and are being implemented over three years, with updates effective May 1 of each year.

As of March 31, 2015, the AER held $92 635 in cash under the LLR program. This is $21 803, or 31 per cent, higher than on March 31, 2014. The increase in cash security received was caused mainly by the implementation of the second phase of the changes to the LLR program discussed above.

The total amount of letters of credit held under the LLR program as of March 31, 2015, was $153 521, which is $49 817, or 24 per cent, lower than in fiscal 2014. In fiscal 2015, $80 million in letters of credit outstanding under the LLR program as of March 31, 2014, were returned to a licensee that had made a significant business acquisition. This was offset by the increase in letters of credit received due to the implementation of the second phase of the changes to the LLR program discussed above.

- The Mine Financial Security Program (MFSP) was developed to manage liabilities associated with coal and oil sands mining operations. The program requires a base amount of security for each project, which would provide the funds necessary to place the site in a safe and secure state and maintain care and custody should the approval holder fail to meet its obligations. Approval holders are responsible for the suspension, abandonment, remediation, and reclamation of lands disturbed by resource development. As mines are depleted, security amounts increase. Additional security must also be posted when a mine owner does not meet certain financial tests.

  Annually, approval holders report to the AER on the status of reclamation and land disturbances and adjust their MFSP security deposits accordingly. In fiscal 2015, an additional $161 089 in letters of credit was placed with the AER under the MFSP as a result of additional land disturbances caused by mining and processing operations.

Financial Position and Liquidity

Years Ended March 31	2015	2014
Cash and cash equivalents, beginning of year	$ 42 055	$ 36 647
Operating Activities	32 839	19 278
Investing Activities	(20 854)	(13 870)
Cash and cash equivalents, end of year	**$ 54 040**	$ 42 055

The AER's cash balance on March 31, 2015, was $54 040, compared to $42 055 on March 31, 2014. The increase is primarily the result of the following:

- **Operating activities** provided cash of $32 839 in fiscal 2015, while fiscal 2014 provided cash of $19 278.

  The increase in fiscal 2015 is mainly attributable to the increase in annual operating surplus and changes in non-cash working capital.
  - The annual operating surplus in fiscal 2015 was $15 405 compared to an annual operating surplus of $1 940 in fiscal 2014. This increase of $13 465 is due to the AER's expenditures being lower than originally budgeted. Refer to the Overall Analysis of Actual and Expected Results section of this MD&A for further discussion of actual and budgeted expenditures.
  - Accounts receivable were $12 245 on March 31, 2015, compared to $3 892 on March 31, 2014, an increase of $8 353. The increase is mainly due to the timing of the orphan well levy in 2015. In fiscal 2015, the levy fees were due after fiscal year-end. In fiscal 2014, invoices were issued in February and were due before March 31, 2014.
  - Accounts payable and accrued liabilities on March 31, 2015, were $33 511 compared to $21 582 on March 31, 2014, an increase of $11 929. The increase in the accounts payable and accrued liabilities balance on March 31, 2015, is attributable to the AER's increased activities.
  - The grant payable to the OWA was $15 055 on March 31, 2015, compared to $10 750 on March 31, 2014, an increase of $4 305. The AER collects the orphan well levy on behalf of the OWA and transfers the collected amounts to the OWA.

- **Investing activities** in fiscal 2015 used cash of $20 854, compared to $13 870 in fiscal 2014, for the purchase of tangible capital assets.

Overall Analysis of Actual and Expected Results

Years Ended March 31	2015 Authorized Budget	2015 Actual	Change	% Change
Revenues				
Industry levies and assessments	$ 258 168	$ 258 278	$ 110	-
Provincial grant	19 800	19 800	-	-
Other revenue	11 259	9 914	(1 345)	(14)
	289 227	287 992	(1 235)	-
Expenses				
Energy regulation	264 227	256 827	(7 400)	(3)
Orphan abandonment	15 500	15 760	260	2
	279 727	272 587	(7 140)	(3)
Annual operating surplus	9 500	15 405	5 905	38
Capital				
Capital investment	24 200	20 854	(3 346)	(16)
Less: Amortization	(14 700)	(11 836)	(2 864)	(24)
Loss on disposal and write-down of tangible capital assets	-	(779)	(779)	(100)
Net capital investment	9 500	8 239	(1 261)	(13)
	$ -	$ 7 166	$ 7 166	100

Total Expenses

The AER's energy regulation expenses for the year were $256 827, which is $7 400, or 3 per cent, less than the authorized budget. In the latter portion of the fiscal year, the AER received approval to issue an in-year industry levy for $35 900 to fund directed changes in the AER's mandate. The AER initiated budget cost savings, in line with other provincial agencies, to address the existing economic climate in Alberta caused by the collapse of world oil prices and, consequently, did not spend all available funds.

Risks and Risk Management

The AER is exposed to various risks in delivering its mandate. To ensure the AER can better manage its risks, it has developed a risk management process that identifies risks, assesses the impact and likelihood of them occurring, and determines how best to mitigate these risks. The AER's management is responsible for the ongoing operations of the organization, including managing its risks.

Risk management is a key element of organizational governance and is characterized by a process of continuous review and improvement. The key features of the AER's governance and internal control environment, which allows the AER to manage its risks, are as follows:

- The AER's business is governed by a board of directors. Directors are independent from any person or entity having a material interest in the AER and are appointed by Orders in Council made by the Lieutenant Governor in Council under *REDA*.
- The AER has an Enterprise Risk Management Program in place, which provides a common framework to identify and analyze risks and ensure that those managing risk are appropriately mitigating it.
- The AER is committed to maintaining a high level of ethics and integrity. The AER board and management foster these values throughout the organization and maintain an effective whistleblower policy. The AER also maintains a code of conduct applicable to its directors, officers, employees, and contractors that reflects the values and integrity of the AER and provides rules and guidance on adhering to the AER's values. All directors, officers, employees, and contractors must abide by the policy.
- AER management is responsible for establishing and maintaining adequate internal controls over financial reporting. These controls are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with PSAS. Internal controls, no matter how well they are designed, have inherent limitations and provide only reasonable assurance with respect to financial statement preparation. Accordingly, they may not prevent or detect all misstatements.
- The Audit and Finance Committee reviews and monitors the system of internal controls, the risk management program, the external audit process and the AER's process for ensuring compliance with the laws and regulations under which it operates.
- The AER's internal audit function provides the AER with an objective and independent assessment of internal controls and identifies opportunities to improve operational and financial

reporting. The AER's internal audit department reports directly to the Audit and Finance Committee and, if required, discusses matters with the Audit and Finance Committee independent of management.

- The AER carries insurance coverage that is reviewed and approved by the Audit and Finance Committee. The insurance coverage may not be adequate to cover all possible risks and the proceeds of any insurance claim may not be adequate to cover all potential losses.

Future Outlook

Fiscal 2016 Estimates Compared to Fiscal 2015 Authorized Budget

Years Ended March 31	**2016 Estimates**	2015 Authorized Budget	Change	% Change
Revenues				
Industry levies and assessments	**$ 270 093**	$ 258 168	$ 11 925	5
Provincial grant	**-**	19 800	(19 800)	(100)
Other revenue	**8 159**	11 259	(3 100)	(28)
	278 252	289 227	(10 975)	(4)
Expenses				
Energy regulation	**250 252**	264 227	(13 975)	(5)
Orphan abandonment	**30 500**	15 500	15 000	97
	280 752	279 727	1 025	-
Annual operating surplus (deficit)	**(2 500)**	9 500	(12 000)	(126)
Capital				
Capital investment	**9 000**	24 200	(15 200)	(63)
Less: Amortization	**(11 500)**	(14 700)	(3 200)	(22)
Net capital investment	**(2 500)**	9 500	(12 000)	(126)
	$ -	$ -	$ -	-

The estimate for industry levies and assessments is $11 925, or 5 per cent, higher in 2016 than the 2015 authorized budget. The increase in the levy occurred due to a $15 000 increase to the orphan fund to support estimated orphan abandonment costs. This increase is partially offset by a $3 075 reduction to the AER's industry levy in 2016.

The estimate for provincial grants is zero, $19 800 lower than in fiscal 2014. The $19 800 provincial grant in the current fiscal year was directed to the remaining implementation costs of the AER.

Funds from industry levies and assessments are used to support the AER's operations. The decrease in estimated energy regulation costs of $13 975, or 5 per cent, relates to the AER's commitment to reduce expense targets in 2016 due to the current economic downturn in Alberta.

Estimated capital investment for 2016 is $15 200, or 63 per cent, less than the 2015 budget. The transition to the AER has been completed, and the AER expects that fewer funds will be required in 2016.

Forward-Looking Statements

This MD&A contains forward-looking statements that are subject to certain assumptions and risks that create uncertainties. These assumptions and risks could cause actual results to differ materially from results anticipated by the forward-looking statements.

Additional Information

Additional information relating to the AER can be found on the AER's website at www.aer.ca.

ALBERTA ENERGY REGULATOR FINANCIAL STATEMENTS

For the Year Ended March 31, 2015

Independent Auditor's Report

Statement of Operations

Statement of Financial Position

Statement of Cash Flows

Notes to the Financial Statements

Schedules to the Financial Statements

AUDITOR GENERAL Alberta

Independent Auditor's Report
To the Board of Directors of the Alberta Energy Regulator

Report on the Financial Statements

I have audited the accompanying financial statements of the Alberta Energy Regulator, which comprise the statement of financial position as at March 31, 2015, and the statements of operations and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the

appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Alberta Energy Regulator as at March 31, 2015, and the results of its operations, its remeasurement gains and losses, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

[Original signed by Merwan N. Saher, FCA]

Auditor General
May 14, 2015
Edmonton, Alberta

ALBERTA ENERGY REGULATOR
STATEMENT OF OPERATIONS
Year Ended March 31 (in thousands)

	2015		2014
	Estimates (Schedule 3)	Actual	Actual
Revenues			
Industry levies and assessments	$ 222 268	$ 258 278	$ 181 668
Provincial grant	19 800	19 800	36 300
Information, services, and fees	8 759	8 260	7 431
Investment	2 500	1 654	1 023
	$ 253 327	$ 287 992	$ 226 422
Expenses			
Energy regulation (Schedule 1)	229 627	256 827	208 310
Orphan abandonment (Note 3)	15 500	15 760	16 172
	245 127	272 587	224 482
Annual operating surplus (Note 12)	**$ 8 200**	**$ 15 405**	**$ 1 940**

The accompanying notes and schedules are an integral part of these financial statements.

ALBERTA ENERGY REGULATOR
STATEMENT OF FINANCIAL POSITION
As at March 31 (in thousands)

	2015	2014
Assets		
Cash and cash equivalents (Note 4)	$ 54 040	$ 42 055
Security deposits (Note 6)	122 835	100 211
Accounts receivable	12 245	3 892
Prepaid expenses and other assets	10 353	9 660
Tangible capital assets (Note 7)	63 211	54 972
	$ 262 684	**$ 210 790**
Liabilities		
Accounts payable and accrued liabilities	$ 33 511	$ 21 582
Grant payable to Orphan Well Association	15 055	10 750
Security deposits (Note 6)	122 835	100 211
Deferred revenue (Note 9)	2 056	2 971
Deferred lease incentives (Note 10)	23 023	23 535
Pension obligations (Note 11)	2 349	3 291
	198 829	162 340
Net Assets		
Accumulated operating surplus (Note 12)	63 855	48 450
	63 855	48 450
	$ 262 684	**$ 210 790**
Contractual obligations (Note 13)		

The accompanying notes and schedules are an integral part of these financial statements.

ALBERTA ENERGY REGULATOR
STATEMENT OF CASH FLOWS
Year Ended March 31 (in thousands)

	2015	2014
Operating transactions		
Annual operating surplus	$ 15 405	$ 1 940
Non-cash items included in net operating results		
Amortization of tangible capital assets (Note 7)	11 836	12 045
Loss on disposal and write-down of tangible capital assets	779	-
Change in pension obligations	(942)	31
Amortization of deferred lease incentives (Note 10)	(1 430)	(1 370)
	25 648	12 646
(Increase) in accounts receivable	(8 353)	(412)
(Increase)/decrease in prepaid expenses and other assets	(693)	431
Increase in accounts payable and accrued liabilities	11 929	2 601
Increase in grant payable to Orphan Well Association	4 305	1 778
(Decrease)/increase in deferred revenue	(915)	1 486
Additions to deferred lease incentives (Note 10)	918	748
Cash provided by operating transactions	32 839	19 278
Capital transactions		
Acquisition of tangible capital assets (Note 7)	(20 854)	(13 870)
Cash applied to capital transactions	(20 854)	(13 870)
Increase in cash and cash equivalents	11 985	5 408
Cash and cash equivalents at beginning of year	42 055	36 647
Cash and cash equivalents at end of year	**$ 54 040**	**$ 42 055**

The accompanying notes and schedules are an integral part of these financial statements.

ALBERTA ENERGY REGULATOR
NOTES TO THE FINANCIAL STATEMENTS
March 31, 2015 (in thousands)

Note 1 Authority and purpose

The Alberta Energy Regulator (AER) is an independent and quasi-judicial organization of the Government of Alberta. The AER operates under the *Responsible Energy Development Act* (*REDA*). The AER's mandate provides for the safe, efficient, orderly and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes the conservation and management of water, the disposition and management of public lands and protection of the environment.

The AER was established on June 17, 2013 to supersede the Energy Resources Conservation Board (ERCB). The AER is responsible for the historic regulatory functions of the ERCB as well as certain functions of Alberta Environment and Sustainable Resource Development that relate to public lands, water and the environment.

Note 2 Summary of significant accounting policies and reporting practices

These financial statements are prepared in accordance with Canadian Public Sector Accounting Standards (PSAS).

(a) Revenues

All revenues are reported on the accrual basis of accounting. Cash received for which services have not been provided by year end is recorded as deferred revenue.

Government transfers

Transfers from the Government of Alberta are referred to as provincial grants.

Provincial grants, without terms for the use of the transfer, are recorded as revenue when the transfer is authorized and the AER is eligible to receive the funds.

(b) Expenses

Expenses are reported on an accrual basis. The cost of all goods consumed and services received during the year is expensed.

(c) Assets

Financial assets are assets that could be used to discharge existing liabilities or finance future operations and are not for consumption in the normal course of operations. Financial assets of the AER are limited to financial claims, such as advances to and receivables from other organizations.

Note 2 Summary of significant accounting policies and reporting practices (continued)

Tangible capital assets are recorded at historical cost, which includes amounts that are directly related to the acquisition, design, construction, development, improvement or betterment of the assets and are amortized over their estimated useful lives using the following methods:

Leasehold improvements	Straight line	Term of the lease
Furniture and equipment	Straight line	5 - 12 years
Computer hardware	Straight line	4 - 5 years
Computer software - purchased	Straight line	4 - 5 years
Computer software - developed	Declining balance	5 years

Work-in-progress, which includes developed computer software and leasehold improvements, is not amortized until a project is complete and the asset is put into service.

Tangible capital assets are written down when conditions indicate that they no longer contribute to the AER's ability to provide goods and services, or when the value of future economic benefits associated with the tangible capital assets is less than their net book value. The net write-downs are accounted for as expense in the Statement of Operations.

(d) Liabilities

Liabilities are recorded to the extent that they represent obligations as a result of events and transactions occurring prior to the end of the fiscal year. The settlement of liabilities will result in a sacrifice of economic benefits in the future.

(e) Net assets

Net assets represent the difference between the carrying value of assets held by the AER and its liabilities.

PSAS requires a "net debt" presentation for the Statement of Financial Position in the summary financial statements of governments. Net debt presentation reports the difference between financial assets and liabilities as "net debt" or "net financial assets" as an indicator of the future revenues required to pay for past transactions and events. The AER operates within the government reporting entity, and does not finance all its expenditures by independently raising revenues. Accordingly, these financial statements do not report a net debt indicator.

(f) Valuation of financial assets and liabilities

The AER's financial assets and liabilities are generally measured as follows:

Financial Statement Component	Measurement
Cash and cash equivalents	Amortized cost and cost
Accounts receivable	Amortized cost
Security deposits	Amortized cost
Accounts payable and accrued liabilities	Cost
Grant payable to the Orphan Well Association	Cost

Note 2 Summary of significant accounting policies and reporting practices (continued)

Fair value is the amount of consideration agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act. The fair values of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, grant payable to the Orphan Well Association and security deposits are estimated to approximate their carrying values.

The AER has not designated any financial assets or liabilities in the fair value category, has no significant foreign currency transactions and does not hold any derivative contracts. The AER has no significant remeasurement gains or losses and consequently has not presented a statement of remeasurement gains and losses.

(g) Pension

Accrued benefit obligations are actuarially determined using the projected benefit method prorated on length of service and management's best estimate of expected plan investment performance, projected employees' compensation levels and retirement age of employees.

The expected return on plan assets is determined using market values of plan assets.

Actuarial gains and losses are amortized over the average remaining service period of the active employees, which is 8.3 years.

Past service cost arising from plan amendments is accounted for in the period of the plan amendments.

Defined contribution plan accounting is applied to the Government of Alberta multi-employer defined benefit pension plans as the AER has insufficient information to apply defined benefit plan accounting. The AER is not responsible for future funding of the plan deficit other than through contribution increases.

(h) Deferred lease incentives

Deferred lease incentives, consisting of leasehold improvement costs, reduced rent benefits and rent-free periods, are amortized on a straight-line basis over the term of the lease.

(i) Measurement uncertainty

Measurement uncertainty exists when there is a variance between the recognized or disclosed amount and another reasonably possible amount. The amounts recorded for amortization of tangible capital assets are based on estimates of the useful life of the related assets. Accrued defined benefit obligations are subject to measurement uncertainty due to the use of actuarial assumptions. The resulting estimates are within reasonable limits of materiality and are in accordance with the AER's significant accounting policies.

Note 2 Summary of significant accounting policies and reporting practices (continued)

(j) Changes in accounting policy

Liability for contaminated sites

In June 2010, the Public Sector Accounting Board issued an accounting standard, Liability for contaminated sites, effective for fiscal years starting on or after April 1, 2014. Contaminated sites are a result of contamination being introduced into air, soil, water or sediment of chemical, organic, or radioactive material, or live organism that exceeds an environmental standard. The AER adopted this accounting standard retroactively as of April 1, 2014 but without restatement of prior period results. The adoption of the standard did not have an impact on the AER's financial statements.

Note 3 Orphan abandonment

The AER has delegated the authority to manage the abandonment and reclamation of wells, facilities and pipelines that are licensed to defunct licensees to the Alberta Oil and Gas Orphan Abandonment and Reclamation Association (Orphan Well Association). The AER grants all of its orphan abandonment revenues (levy and application fees) to the Orphan Well Association. During the year ended March 31, 2015, the AER collected $15 000 (2014 - $15 242) in levies and $760 (2014 - $930) in application fees.

Note 4 Cash and cash equivalents

During 2015, the AER transferred its cash and cash equivalents from the Consolidated Cash Investment Trust Fund (the Fund) to a Premier Investment Account. The account earns interest calculated based on the average monthly cash balance. The funds are able to be withdrawn upon request. During the year ended March 31, 2015, the AER earned interest at the rate of 1.3%.

As at March 31, 2014, the Consolidated Cash Investment Trust Fund was comprised of high quality short-term and mid-term fixed income securities with a maximum term to maturity of three years and securities held by the Fund had a time-weighted return of 1.2% per annum. The Fund is managed by the Province of Alberta to provide interest income at competitive rates while maintaining maximum security and liquidity of depositors' principal.

Note 5 Financial instruments

The AER has the following financial instruments: accounts receivable, accounts payable and accrued liabilities, grant payable to the Orphan Well Association and security deposits.

The AER has exposure to the following risks from its use of financial instruments:

(a) Liquidity risk

Liquidity risk is the risk that the AER will encounter difficulty in meeting obligations associated with financial liabilities. The AER does not consider this to be a significant risk as the AER collects funding at the beginning of the year to meet all obligations that arise during the year. In addition, the available credit facility provides financial flexibility to allow the AER to meet its obligations if funding cannot be collected on a timely basis.

Note 5 Financial instruments (continued)

(b) Credit risk

The AER is exposed to credit risk from potential non-payment of accounts receivable. As at March 31, 2015, the amount of financial assets that were past due was not significant and there were no material uncollectible receivable balances.

Note 6 Security deposits

The AER encourages the timely and proper abandonment and reclamation of upstream wells, facilities, pipelines, mines, mine sites and oilfield waste management facilities by holding various forms of security. At March 31, 2015, the AER held $122 835 (2014 - $100 211) in cash and an additional $1 707 241 (2014 - $1 595 700) in letters of credit. The security, along with any interest earned, will be returned to the depositors upon meeting specified refund criteria.

Note 7 Tangible capital assets

	Land	Leasehold improvements	Furniture and equipment	Computer hardware and software	Total
Estimated useful life	Indefinite	Term of the lease	5 - 12 years	4 - 5 years	
Historical cost					
Beginning of year	$ 282	$ 28 593	$ 13 330	$ 115 154	$ 157 359
Additions	-	8 023	2 925	9 906	20 854
Disposals, including write-downs	-	(561)	(101)	(1 061)	(1 723)
	282	36 055	16 154	123 999	176 490
Accumulated amortization					
Beginning of year	$ -	$ 6 004	$ 8 291	$ 88 092	$ 102 387
Amortization expense	-	1 736	1 032	9 068	11 836
Disposals, including write-downs	-	-	(96)	(848)	(944)
	-	7 740	9 227	96 312	113 279
Net book value at March 31, 2015	**$ 282**	**$ 28 315**	**$ 6 927**	**$ 27 687**	**$ 63 211**
Net book value at March 31, 2014	**$ 282**	**$ 22 589**	**$ 5 039**	**$ 27 062**	**$ 54 972**

Historical cost includes work-in-progress at March 31, 2015 totaling $454 (March 31, 2014 - $2 122) comprised of: computer hardware and software $321 (March 31, 2014 - $1 507) and leasehold improvements $133 (March 31, 2014 - $615).

Note 8 Revolving line of credit

During 2015, the AER entered into an unsecured $50 000 revolving line of credit. Amounts borrowed can only be applied to general corporate purposes and exclude the funding of operating deficits and/or capital expenditures. Bank advances on the line of credit are payable on demand and bear interest at prime less 0.5%. As at March 31, 2015, the outstanding balance for the revolving line of credit was $nil.

Note 9 Deferred revenue

	2015	2014
Balance at beginning of year	$ 2 971	$ 1 485
Received during year	347	3 758
Less amounts recognized as revenue	(1 262)	(2 272)
Balance at end of year	**$ 2 056**	**$ 2 971**

Note 10 Deferred lease incentives

The AER has entered into various lease agreements which provide for lease incentives comprised of reduced rent benefits, rent-free periods and leasehold improvement costs. These amounts are included in deferred lease incentives and are amortized on a straight line basis over the term of the lease.

	2015			2014
	Leasehold improvement costs	Reduced rent benefits and rent-free periods	Total	Total
Balance at beginning of year	$ 19 275	$ 4 260	$ 23 535	$ 24 157
Additions during the year	237	681	918	748
Amortization	(1 181)	(249)	(1 430)	(1 370)
Balance at end of year	**$ 18 331**	**$ 4 692**	**$ 23 023**	**$ 23 535**

Note 11 Pension

The AER participates in the Government of Alberta's multi-employer pension plans: Management Employees Pension Plan, Public Service Pension Plan and Supplementary Retirement Plan for Public Service Managers. For the year ended March 31, 2015, the expense for these pension plans is equal to the contribution of $17 325 (2014 - $13 194). Pension expense recorded is comprised of employer contributions to the plans that are required for its employees during the year, which are calculated based on actuarially determined amounts that are expected to provide the plans' future benefits.

In addition, the AER maintains its own defined benefit Senior Employees Pension Plan (SEPP) and two supplementary pension plans to compensate senior staff who do not participate in the government management pension plans. Retirement benefits are based on each employee's years of service and remuneration.

The effective date of the most recent actuarial funding valuation for SEPP was December 31, 2013. The accrued benefit obligation as at March 31, 2015 is based on the extrapolation of the results of this valuation. The effective date of the next required funding valuation for SEPP is December 31, 2016.

Pension plan assets are valued at market values. During the year ended March 31, 2015 the weighted average actual return on plan assets was 11.7% (9.2% in 2014).

Significant weighted average actuarial and economic assumptions used to value accrued benefit obligations and pension benefit costs are as follows:

	March 31, 2015	March 31, 2014
Accrued benefit obligations		
Discount rate	4.9%	5.3%
Rate of compensation increase	0% for 2016, 3.5% thereafter	3.8%
Long-term inflation rate	2.0%	2.3%

	2015	2014
Pension benefit costs for the year		
Discount rate	5.3%	5.0%
Expected rate of return on plan assets	5.3%	5.0%
Rate of compensation increase	3.8%	3.8%

Note 11 Pension (continued)

The funded status and amounts recognized in the Statement of Financial Position are as follows:

	March 31, 2015	March 31, 2014
Market value of plan assets	$ 45 087	$ 37 859
Accrued benefit obligations	49 510	43 231
Plan (deficit)	(4 423)	(5 372)
Unamortized actuarial loss	2 074	2 081
Pension obligations	**$ (2 349)**	**$ (3 291)**

The pension benefit costs for the year include the following components:

	2015	2014
Current period benefit cost	$ 3 625	$ 2 022
Interest cost	2 394	2 030
Expected return on plan assets	(2 110)	(1 786)
Amortization of actuarial losses	396	395
	$ 4 305	**$ 2 661**

Additional information about the defined benefit pension plans is as follows:

	2015	2014
AER contribution	$ 5 247	$ 2 630
Employees' contribution	731	507
Benefits paid	3 350	3 024

Note 11 Pension (continued)

The asset allocation of the defined benefit pension plans' investments is as follows:

	March 31, 2015	March 31, 2014
Equity securities	49.9%	49.4%
Debt securities	38.4%	39.0%
Other	11.7%	11.6%
	100.0%	**100.0%**

Note 12 Accumulated operating surplus

Accumulated operating surplus is comprised of the following:

	Investments in tangible capital assets[a]	Unrestricted net assets	Accumulated surplus
Balance at beginning of year	$ 35 697	$ 12 753	$ 48 450
Annual operating surplus	-	15 405	15 405
Net investment in capital assets	9 183	(9 183)	-
Balance at end of year	**$ 44 880**	**$ 18 975**	**$ 63 855**

(a) Excludes leasehold improvement costs received by the AER as a lease incentive.

Note 13 Contractual obligations

Contractual obligations are obligations of the AER to others that will become liabilities in the future when the terms of those contracts or agreements are met.

Estimated payment requirements for obligations under operating leases and contracts for each of the next five years and thereafter are as follows:

2016	$	21 271
2017		17 825
2018		16 762
2019		12 598
2020		11 590
2021 – 2086		118 940
	$	**198 986**

Note 14 Related party transactions

Related parties are those entities consolidated or accounted for on the modified equity basis in the Province of Alberta's financial statements.

The AER had the following transactions with related parties recorded in the Statement of Operations and the Statement of Financial Position at the amount of consideration agreed upon between the related parties:

	Entities in the Ministry		Other entities	
	2015	2014	2015	2014
Revenues				
Provincial grant	$ 19 875	$ 36 300	$ -	$ -
Information, services and fees	150	146	136	144
	$ 20 025	**$ 36 446**	**$ 136**	**$ 144**

Note 14 Related party transactions (continued)

	Entities in the Ministry		Other entities	
	2015	2014	2015	2014
Expenses				
Computer services	$ 2 122	$ 2 154	$ 1 167	$ 1 197
Buildings	-	-	600	553
Administrative	-	275	933	617
Consulting services	82	153	321	173
	$ 2 204	**$ 2 582**	**$ 3 021**	**$ 2 540**
Receivable from	**$ 10**	**$ 86**	**$ 4**	**$ 15**
Payable to	**$ 4 460**	**$ 4 571**	**$ 669**	**$ 605**

Note 15 Comparative figures

The AER was established on June 17, 2013 to supercede the ERCB. The 2014 comparative figures combine 77 days of ERCB operations from April 1, 2013 to June 16, 2013 with the balance of the fiscal year being those of the AER.

Note 16 Approval of financial statements

These financial statements were approved by the AER Board of Directors on May 14, 2015.

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS
Schedule 1 Energy Regulation Expenses
Year Ended March 31 (in thousands)

	2015	2014
Personnel	$ 178 510	$ 136 564
Consulting services	19 990	21 962
Buildings	18 016	14 660
Computer services	15 912	12 710
Amortization of tangible capital assets	11 836	12 045
Travel and transportation	5 582	5 076
Administrative	3 771	3 161
Abandonment and enforcement	1 258	1 024
Equipment rent and maintenance	1 173	1 108
Loss on disposal and write-down of tangible capital assets	779	-
	$ 256 827	**$ 208 310**

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS
Schedule 2 Salaries and Benefits Disclosure
Year Ended March 31 (in thousands)

	2015				2014 Restated[(h)]
Position	Base salary[(a)]	Other cash benefits[(b)]	Other non-cash benefits[(c)]	Total[(d)]	Total[(e)]
Board of Directors					
Chairman	$ 285	$ -	$ 6	$ 291	$ 255
Board Director 1	116	-	15	131	97
Board Director 2	112	-	17	129	96
Board Director 3	113	-	14	127	94
Board Director 4	115	-	4	119	100
Board Director 5	116	-	1	117	102
Board Director 6	107	-	1	108	92
Board Director 7[(f)]	28	-	1	29	94
Executives					
President and Chief Executive Officer	527	77	106	710	558
Chief Hearing Commissioner[(g)]	209	7	45	261	212
Executive Vice-President, Corporate Services[(h)]	274	75	62	411	290
Executive Vice-President and General Counsel[(h)(i)]	274	76	68	418	305
Executive Vice-President, Operations[(h)(i)]	316	65	68	449	270
Executive Vice-President, Stakeholder & Government Relations[(h)]	274	93	65	432	260
Executive Vice-President, Strategy & Regulatory[(h)(i)]	274	69	71	414	304

(a) Includes retainers and per diems for Board Directors. Members of the Board of Directors do not participate in the AER's pension plans. Includes pensionable base pay for Executives.

(b) Payments in lieu of vacation, health and pension benefits, and vehicle and relocation allowances. The 2015 balances include short term incentive payments for Executive Vice-Presidents.

(c) Contributions to all benefits as applicable including employer's share of Employment Insurance, Canada Pension Plan, Alberta and AER pension plans, health benefits or payments made for professional memberships and tuition fees. If automobiles were provided, no amount is included in these figures.

Schedule 2 Salaries and Benefits Disclosure (continued)

(d) Salaries and benefits for the Board of Directors are presented in descending order.

(e) Total 2014 compensation reflects compensation earned by members of the Board of Directors and Executives appointed subsequent to June 16, 2013 as a result of the proclamation of *REDA*.

(f) The incumbent left the position effective June 26, 2014.

(g) This position was held by two individuals in the current period.

(h) The 2014 figures have been restated to include short term incentive payments made to Executive Vice-Presidents as other cash benefits in 2014. These short term incentive payments were approved on May 8, 2014. Restated figures for Executive Vice-Presidents are provided below:

	2014			
Position	Base salary	Other cash benefits	Other non-cash benefits	Total
Executive Vice-President, Corporate Services	195	30	65	290
Executive Vice-President and General Counsel	205	50	50	305
Executive Vice-President, Operations	192	34	44	270
Executive Vice-President, Stakeholder & Government Relations	166	38	56	260
Executive Vice-President, Strategy & Regulatory	206	49	49	304

(i) Under the terms of the AER's defined benefit SEPP and two supplementary retirement plans (SRP), employees may receive supplemental retirement payments. Retirement arrangement costs as detailed below are not cash payments in the period but are the period expense for rights to future compensation. Costs shown reflect the total estimated cost to provide annual pension income over an actuarially determined post-employment period. The SEPP and SRP provide future pension benefits to participants based on years of service and remuneration. The cost of these benefits is actuarially determined using the projected benefit method pro-rated on service, a market interest rate, and management's best estimate of expected costs and the period of benefit coverage. Net actuarial gains and losses of the benefit obligations are amortized over the average remaining service life of the employee group. Current service cost is the actuarial present value of the benefits earned in the fiscal year. Prior service and other costs include amortization of past service costs, amortization of actuarial gains and losses, and interest accruing on the actuarial liability. The costs detailed below are only for those employees included in Schedule 2 who participate in the SEPP and SRP maintained by the AER to compensate senior staff who do not participate in the government management pension plans.

	2015			2014
Position	Current service cost	Prior service and other costs	Total	Total
Executive Vice-President and General Counsel	$ 36	$ 6	$ 42	$ 29
Executive Vice-President, Operations[(j)]	51	1	52	-
Executive Vice-President, Strategy & Regulatory	24	16	40	34

Schedule 2 Salaries and Benefits Disclosure (continued)

(j) Pension expense is determined at the beginning of the fiscal period. As this employee became a member of the AER's pension plans on August 12, 2013 the estimated pension expense in fiscal 2014 was $nil.

Position	Accrued obligation April 1, 2014	Changes in accrued obligation	Accrued obligation March 31, 2015	2014
Executive Vice-President and General Counsel	$ 301	$ 102	$ 403	$ 301
Executive Vice-President, Operations[(k)]	44	81	125	44
Executive Vice-President, Strategy & Regulatory	869	239	1 108	869

(k) The accrued obligation at March 31, 2014 is an estimate only as the March 31, 2014 accounting disclosure is based on a December 31, 2012 valuation extrapolated to March 31, 2014.

ALBERTA ENERGY REGULATOR
SCHEDULE TO THE FINANCIAL STATEMENTS
Schedule 3 Estimates
Year Ended March 31, 2015 (in thousands)

	Plan			
	Estimates[a]	Changes	Authorized budget	Actual
Revenues				
Industry levies and assessments	$ 222 268	$ 35 900	$ 258 168	$ 258 278
Provincial grant	19 800	-	19 800	19 800
Information, services and fees	8 759	-	8 759	8 260
Investment	2 500	-	2 500	1 654
	253 327	35 900	289 227	287 992
Expenses				
Energy regulation	229 627	34 600	264 227	256 827
Orphan abandonment	15 500	-	15 500	15 760
	245 127	34 600	279 727	272 587
Annual operating surplus	8 200	1 300	9 500	15 405
Capital				
Capital investment	22 900	1 300	24 200	20 854
Less: Amortization	(14 700)	-	(14 700)	(11 836)
Loss on disposal and write-down of tangible capital assets	-	-	-	(779)
Net capital investment	8 200	1 300	9 500	8 239
	$ -	$ -	$ -	$ 7166

(a) Estimates are based on the AER Business Plan for the year ended March 31, 2015. The Estimates and Changes have been approved by the Treasury Board of the Government of Alberta as the Authorized budget.

GLOSSARY

ALBERTA AMBIENT AIR QUALITY OBJECTIVES AND GUIDELINES
A set of objectives developed by Alberta Environment and Sustainable Resource Development to protect the quality of Alberta's air. Objectives and guidelines are based on scientific and technical research and also account for social and economic factors. Where applicable, objectives align with other North American jurisdictions.

BEST-IN-CLASS
The best of its kind or providing the highest level of service, guidance, or expertise possible. The AER's vision is to be "recognized as being best in class," and has launched the Best-in-Class Project with the University of Pennsylvania to help define this term.

CAPROCK
A relatively impermeable rock, such as shale, that forms a barrier above and around a hydrocarbon (oil, gas, or bitumen) deposit to prevent fluids from migrating beyond the reservoir.

COMPLEX APPLICATIONS
Applications for oil and gas development projects that have multiple factors to consider, such as land access, associated infrastructure, water use, and emissions.

COMPLIANCE SWEEPS
A series of targeted inspections the AER does in a specific area, like Peace River; in June 2014, August 2014, November 2014, February 2015, and May 2015 compliance sweeps took place ensure that Peace River operators were complying with new requirements for managing emissions.

CONTINUOUS IMPROVEMENT INITIATIVE
The AER began the continuous improvement initiative to encourage employees to bring forward solutions that will improve the way we do business; employees share their ideas through an intake system and AER leadership decides whether to implement them.

CUMULATIVE EFFECTS/IMPACTS
The combined effects of development in a specific area that puts pressure on the environment and residents.

CYCLIC STEAM STIMULATION (CSS)
A technique that produces bitumen by injecting steam into underground oil sands reservoirs (i.e., wells) to heat bitumen, separate it from the sand, and allow it to flow to the well and be produced.

EMISSIONS
Gases that are released, intentionally or unintentionally, into the air from energy developments. The AER regulates emissions through *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting.*

FLARING
The burning of natural gas that cannot be processed or sold at the end of a flare stack (i.e., a long metal pipe that gas is sent up, much like a chimney). This causes the flame associated with flaring.

INCINERATING
The mixing and combusting of waste gas streams, air, and fuel in an enclosed chamber. Air and gas are mixed at a controlled rate and ignited. No flame is visible from an incinerator that is operating properly.

VENTING
The intentional and controlled release of uncombusted gas.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
The process used to predict the environmental effects (positive or negative) of an energy development project. The information gathered for an EIA helps the AER decide on applications for complex or large projects.

ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT (EPEA)
Legislation, or law, supporting and promoting the protection, enhancement, and wise use of the environment. The AER assesses applications under *EPEA* for all activities relating to energy development.

INTEGRATED RESOURCE MANAGEMENT SYSTEM (IRMS)
The Government of Alberta's approach to managing Alberta's energy resources that considers the combined effects of existing and future development and aims to coordinate the environmental, economic, and social aspects of energy development. The IRMS includes the AER; the Government of Alberta; the Alberta Environmental Monitoring, Evaluation and Reporting Agency; the Aboriginal Consultation Office; and the Policy Management Office.

LEVY-NEUTRAL REGULATOR
Every year, the AER levies an administration fee on industry to fund our regulatory activities; as part of our goal to become a best-in-class regulator, we are trying to offset the cost of this levy by finding cost-saving efficiencies that offset the annual industry levy.

LOCAL MAGNITUDE
A measure of the strength of an earthquake within 100 kilometres of its centre, as measured by a seismograph—the instrument used to record and measure vibrations during an earthquake. Values range from one to ten on the Richter scale.

MAXIMUM OPERATING PRESSURE
A limitation set on operating pressures for some energy development operations, e.g., pipelines and in situ oil sands recovery, in order to prevent problems with infrastructure or geological structures that can be caused by high operating pressures.

NEAR-TERM ACTION PROGRAM (NTAP)
An AER project that aims to increase our efficiency by eliminating duplication and streamlining regulatory requirements for low-risk activities.

NEW ACTIVITY LIFE-CYCLE APPROACH (NALA)
An AER project that will change how we process applications for development; under NALA, we will accept a single application for a single project, rather than the eight to ten (or more) applications that are often required under our current regulations.

ORGANIC-RICH SHALES
Fine-grained rocks with low permeability that are rich in hydrocarbons—i.e., oil, gas, or natural-gas liquids.

PIPELINE INTEGRITY MANAGEMENT PROJECT
A project initiated by the Western Regulators' Forum to enhance industry's pipeline safety performance.

PIPELINE RULES
A regulation governing pipelines.

PLAY-BASED REGULATION
An AER project designed to give stakeholders a clearer picture of development, more effectively address cumulative effects (i.e., on a holistic basis), reduce industry's footprint by encouraging collaboration between operators, and reduce duplicative and unnecessary infrastructure.

PUBLIC LANDS ACT
Legislation, or law, guiding the use of land owned by the province of Alberta (i.e., public land). The AER regulates energy resource development on public lands, ensuring that energy exploration, development, and ongoing operations on public lands are carried out responsibly.

RECLAMATION CERTIFICATE
Reclamation certificates are required for all publicly-owned land as stated in the *Environmental Protection and Enhancement Act*. Operators are required to return the land to its equivalent state—i.e., as close to its pre-project state as possible—once an oil and gas project is complete.

RECLAMATION CERTIFICATE INQUIRY
An on-site investigation that confirms the statements in a reclamation certificate application.

REGULATORY DIPLOMACY
An AER effort to increase cooperation and knowledge sharing among energy regulators around the world.

RESPONSIBLE ENERGY DEVELOPMENT ACT (REDA)
A piece of legislation, or law, establishing and empowering the AER. *REDA* sets out the AER's mandate, structure, powers, duties, and functions.

RISK-BASED
The practice of focusing on higher risk areas or activities.

RISK-BASED REGULATION
Part of the AER's effort to meet the demands of a new energy development landscape, risk-based regulation will allow us to be more effective by concentrating our resources on higher-risk activities. Many of the AER's major projects, including the one application, one review, one decision approach, the Near-Term Action Program, and the play-based regulation project, are part of the effort take a more risk-based approach to regulating energy development.

STEAM-ASSISTED GRAVITY DRAINAGE (SAGD)
A method of in situ oil sands recovery where steam is injected into a horizontal well to heat the bitumen in a reservoir and allow it to flow; gravity pulls the heated bitumen to a second horizontal well positioned below the first and the bitumen is then produced to the surface.

SUBSURFACE ORDER
A subsurface order is issued pursuant to section 11.104 of the *Oil and Gas Conservation Rules* and specifies rules and requirements to better suit development, production, and data gathering for specific geological zones over a defined area.

TAILINGS
Tailings are a by-product of the process used to extract bitumen from mined oil sands and consist of water, silt, sand, clay, and residual bitumen. Sand and other heavy particles quickly separate from the water, but smaller particles of clay and silt remain in suspension, forming fluid tailings. Fluid tailings can take decades to settle and are an ongoing challenge for the oil sands mining industry.

TAILINGS MANAGEMENT FRAMEWORK OF THE MINEABLE ATHABASCA OIL SANDS
Developed by the Government of Alberta to provide the AER with direction to manage fluid tailings volumes.

TEMPORARY FIELD AUTHORIZATION
Short-term authorizations under the *Public Lands Act* and the *Mines and Minerals Act*.

TIGHT ROCK
Low-permeability rock (i.e., fluid does not transmit easily through the rock) from which hydrocarbon recovery is difficult. Unconventional recovery techniques, such as hydraulic fracturing, are required to produce resources in tight rock.

WELLBORE INTEGRITY
Preventing the escape of fluids (liquids or gases), either at the surface or to other subsurface zones.

ALBERTA ENERGY REGULATOR

Head Office
Suite 1000, 250 – 5 Street SW
Calgary, Alberta T2P 0R4

Inquiries
1-855-297-8311

inquiries@aer.ca

24-hour emergency
1-800-222-6514

www.aer.ca

@aer_news

http://blog.aer.ca/

www.youtube.com/
user/ABEnergyRegulator

www.linkedin.com/company/
alberta-energy-regulator